EXPERIMENTAL INVESTIGATION OF CAUSTIC STEAM INJECTION FOR HEAVY OILS

A Thesis

by

RAJIV MENON MADHAVAN

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2009

Major Subject: Petroleum Engineering

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Approved by:

Chair of Committee, Daulat Mamora
Committee Members, Jerome Schubert
Zoran Sunik
Head of Department, Stephen Holditch

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ABSTRACT

Experimental Investigation of Caustic Steam Injection for Heavy Oils.

(May 2009)

Rajiv Menon Madhavan, B.E. (Hons), Vellore Institute of Technology, India

Chair of Advisory Committee: Dr. Daulat Mamora

An experimental study has been conducted to compare the effect of steam injection and caustic steam injection in improving the recovery of San Ardo and Duri heavy oils. A 67 cm long x 7.4 cm O.D (outer diameter), steel injection cell is used in the study. Six thermocouples are placed at specific distances in the injection cell to record temperature profiles and thus the steam front velocity. The injection cell is filled with a mixture of oil, water and sand. Steam is injected at superheated conditions of 238^{o}C with the cell outlet pressure set at 200 psig, the cell pressure similar to that found in San Ardo field. The pressure in the separators is kept at 50 psig. The separator liquid is sampled at regular intervals. The liquid is centrifuged to determine the oil and water volumes, and oil viscosity, density and recovery. Acid number measurements are made by the titration method using a pH meter and measuring the EMF values. The interfacial tensions of the oil for different concentrations of NaOH are also measured using a tensionometer.

Experimental results show that for Duri oil, the addition of caustic results in an increase in recovery of oil from 52% (steam injection) to 59 % (caustic steam injection). However, caustic has little effect on San Ardo oil where oil recovery is 75% (steam

injection) and 76 % (caustic steam injection). Oil production acceleration is seen with steam-caustic injection. With steam caustic injection there is also a decrease in the produced oil viscosity and density for both oils. Sodium hydroxide concentration of 1 wt % is observed to give the lowest oil-caustic interfacial tension. The acid numbers for San Ardo and Duri oil are measured as 6.2 and 3.57 respectively.

DEDICATION

I would like to dedicate my thesis to my parents and my brother who have always given me encouragement and the courage and who have always stood by me and have inspired me in all aspects of my life. I would also like to dedicate my thesis to my teachers and friends at D.A.V. Public School and the Vellore Institute of Technology who helped me during the course of my schooling and undergraduate degree.

ACKNOWLEDGEMENTS

I would like to express my gratitude and respect to my advisor, Dr. Mamora, for guiding me through my research and helping me at every step throughout the course of my research. I would like to thank Crisman Institute for Petroleum Research at Texas A&M University for sponsoring the project.

I would also like to thank my committee members, Dr. Schubert and Dr. Sunik Zoran, for serving on my committee.

I would also like to thank my friends and colleagues and the department faculty and staff for making my time at Texas A&M University a great experience. Finally, thanks to my family for their encouragement and love.

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CHAPTER I

INTRODUCTION

1.1 Overview

Heavy oil is a part of the unconventional petroleum reserve. Heavy oil does not flow very easily and is classified as heavy because of its high specific gravity. With increasing demand for oil and with depleting light oil resources it is essential to explore the unconventional petroleum reserve of which heavy oil constitutes a major part. Heavy oil constitutes about 15% of the world's remaining oil reserves as shown in **Fig.1.1.**

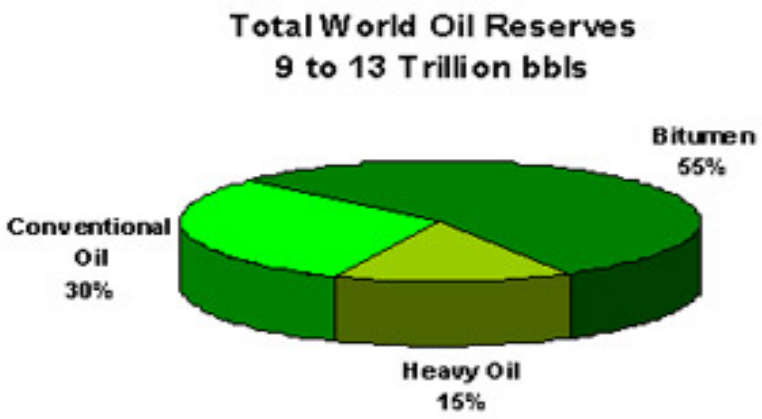

Figure 1.1 - World oil reserves (US Dept of Energy, 2001)

This thesis follows the form and style of the *SPE Journal*.

Properties of heavy oil are as follows:

(i) High specific gravity

(ii) High viscosity

(iii) High boiling points

(iv) High content of asphalt, nitrogen and low hydrogen-to-carbon ratio.

Heavy oil has not been fully explored because of the difficulties associated with extracting it, but with improved drilling and enhanced oil recovery techniques there has been a substantial increase in the production of heavy oil. Difficulties associated with the production of heavy oil include the following:

(i) Difficult and expensive to produce

(ii) Requires massive amount of heat to make it more mobile/less viscous.

(iii) It usually contains impurities such as sulphur, heavy metals waxes and residue that must be removed before it is refined.

1.2 Injection Mechanisms

Heavy oils are primarily recovered by thermal recovery methods where temperature of the crude is increased so that it can be produced readily. Heating of a reservoir has to be done efficiently. Heat is lost to the under burden and overburden and a part of it is lost through the produced reservoir fluids.

The thermal methods that have been used over the past decade are steam injection and insitu combustion. Steam injection is the most prevalent among the two methods and has been applied effectively in many countries such as Venezuela, Canada and the US. (Prats 1986).

The factors to be considered for a successful steam flood:

(i) Good quality reservoir with favorable porosity and permeability.

(ii) Lateral continuity of the reservoir over a sufficiently large area.

(iii) Favorable ratio of pay sand to gross interval.

(iv) Adequate oil saturations.

(v) Adequate total pay zone thickness.

Various factors that help increase recovery of oil during steam injection are as follows:

(i) Improve oil mobility by decreasing the viscosity.

(ii) Thermal expansion of the oil.

(iii) Distillation of the lighter hydrocarbons in the steam zone.

Five distinct zones are formed as a result of the injection of steam into the reservoir. The first zone nearest to the injector consists of the water and vapor and the residual oil which is called the steam zone. The second zone consists of the light fractions that are distilled off and condense a little ahead of the steam zone and is called the solvent bank. The solvent bank mixes with the oil thus reducing the interfacial tension and the viscosity. The steam and the volatile oil then condense when they come in contact with the cold matrix and form the hot water zone. As a result of the first three zones an oil bank is formed which comprises the oil that is formed. The fifth zone is formed farthest away from the injector and is composed of the original oil. **Fig.1.2** shows the five distinct zones.

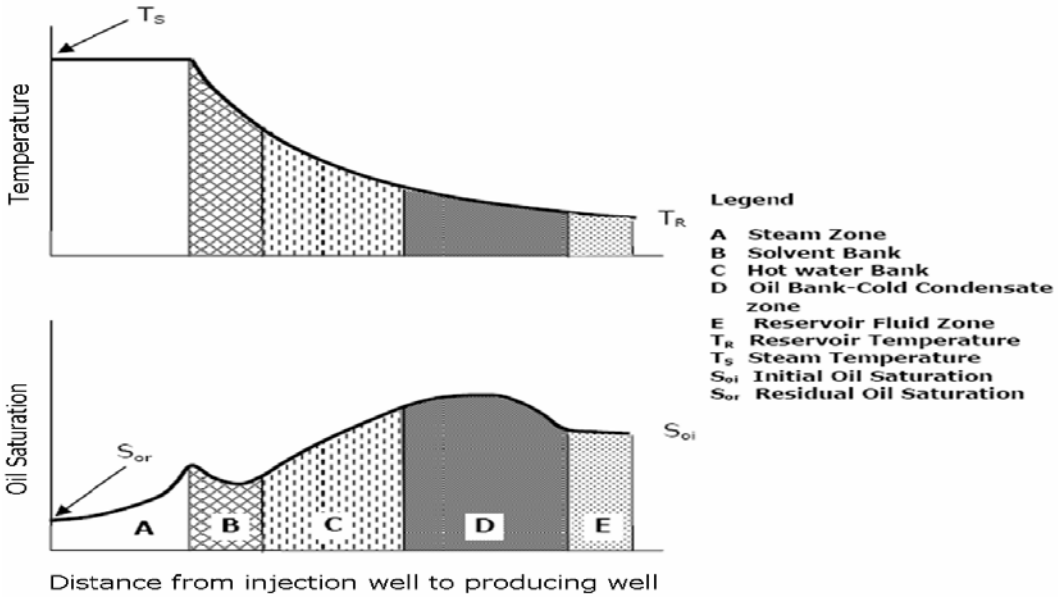

Figure 1.2 - Temperature and Saturation profiles during steam injection (from K. C. Hong 1994).

Although steam flooding enjoys a higher productivity it suffers from the following drawbacks:

(1) Channeling of the steam through high permeability zones.

(2) Gravity override which leads to early breakthrough. This reduces the amount of contacted oil in the reservoir, only heating the upper portion of the reservoir. The oil that is directly below it is not heated. Accumulation of steam on the top portion of the reservoir causes heat losses to the overburden. Therefore the portion of reservoir that is swept by steam has low residual oil saturation whereas the bottom part of the reservoir has significantly higher oil saturation.

To improve oil recovery-particularly residual oil by-passed due to steam override, various steam additives have been studied and tested in the past. Steam additives such as propane and carbondioxide have been shown to increase the recovery factor but the cost

of the injecting additives with steam is high. A series of experiments conducted in the Ramey Lab at Texas A & M University has shown that the addition of propane to steam significantly accelerates the start of oil production but not the recovery factor of oil. Therefore there arises a need to improve the heavy oil recovery with the help of a suitable steam additive.

The main purpose of this research is to test the effect of lowering IFT and thus increasing oil recovery by the addition of an alkali to steam. The alkali (NaOH) would react with organic acids in the oil to form a surfactant that reduces the oil IFT.

1.3 Overview of Sodium Hydroxide

Sodium hydroxide is a white solid and is commercially available in pellets, flakes and granules and also as a 50 % saturated solution. Sodium hydroxide is produced in large amounts by the chloralkali process. The basic properties of sodium hydroxide are shown in **Table 1.1.**

Table 1.1 - Properties of NaOH

IUPAC name	Sodium hydroxide
Other names	Lye, Caustic Soda
Properties	
Molecular formula	NaOH
Molar mass	39.9971 g/mol
Appearance	White solid
Density	2.1 g/cm³, solid
Melting point	318°C (591 K)
Boiling point	1390°C (1663 K)
Solubility in water	111 g/100 ml (20°C)
Basicity (pKb)	-2.43

Sodium hydroxide is used as a strong base in the industry. It is also used in:

(i) Production of soap.

(ii) Production of alumina.

(iii) Paper, pulp and textile industry and drain cleaners.

(iv) Aluminum etching and food preparation.

Caustic flood causes wettability reversal and improves the waterflood recovery of heavy oil. The mechanism involved is the drastic reduction of oil-water interfacial tension by the caustic activation of potentially surface active organic acids naturally occurring in the crude oil. The reduction of interfacial tension causes emulsification of the crude oil in situ that tends to lower injected water mobility, damp the tendency toward viscous fingering, slow water channeling caused by reservoir stratification and improve sweep efficiency. The success of a caustic steam flood depends on the amount of acid present in the oil, the reservoir rock pore geometry and the extent to which it consumes the caustic. The acid that is present in the oils reacts with positive sodium ion and form a soap which lowers the interfacial tension. The success of the process also depends on the presence of long chain hydrocarbons.

1.4 Research Objectives:

The main objectives of the research are as follows:

(1) To understand the effect of sodium hydroxide on heavy oils such as San Ardo on factors such as recovery factor of oil, interfacial tension, viscosity and density.

(2) To determine the optimal concentration of sodium hydroxide so that maximum amount of surfactant is formed during alkaline steam flooding.

3) To measure the acid number of the oil in order to determine if sufficient amount of acids are present in the oil to form a significant amount of surfactant.

The alkaline steamflooding experiments are conducted on a one-dimensional cell in the Ramey Laboratory. Although it doesn't represent all the mechanisms like a three dimensional model it gives us valuable information about the process.

The first objective is aimed at understanding the behavior of heavy oils such as San Ardo when subjected to alkaline steam flooding. Alkaline steamflooding is carried out from the start unlike previous processes where the sandpack is waterflooded first and then alkaline steamflooding is carried out.

The second objective is aimed at understanding the optimal concentration at which the sodium hydroxide can be used in the steamflooding process. Since heavy oils like San Ardo have not been studied, the concentration of caustic is an important parameter to be determined.

The third objective is to determine whether there is enough amount of acid in the oil such that it can actually react and form a surfactant.

CHAPTER II

LITERATURE REVIEW

In this section literature reviews of the studies on alkaline flooding are presented. Alkaline flooding processes have always been performed for waterflooded reservoirs.

Jennings (1974) conducted a study of caustic solution and crude oil interfacial tensions and found that a majority of the oils showed a marked surface activity against caustic solutions and the maximum measurable surface activity is obtained for majority of the samples at 0.1 percent by weight and the presence of dissolved solids in the water has a significant effect on the interfacial activity.

Ehrlich *et al.* (1976) conducted a series of laboratory caustic waterfloods on lighter oils (mostly>30^{o}API). The caustic depletion measurements were conducted in various oil producing formations and in Berea sandstone and it was found that crude oils with acid numbers greater than 0.1 to 0.2 mg KOH per gram oil and interfacial tension less than 0.5 dyne/cm gave significant caustic waterflood production and the caustic consumption can be determined from mineral composition methods as determined by X-ray methods.

Goyal and Arora (1978) showed the applicability of caustic flooding for enhancing oil recovery in North Gujarat oil fields. They found that the optimum concentration of caustic that was used for the improvement of recovery was 0.25 wt %. The injection rate affected the ultimate recovery of the oil and a smaller rate of 4 cc/hour gave the best performance. The injection profiles were found to be smooth and the pumping pressures are lower for caustic than water. The breakthrough ultimate recovery with caustic

injection on natural cores was (in % OIP): 31.3 % and 55.2% as against 20.7% and 41.9 % with water.

Okoye and Tiab (1982) studied the applicability of alkali as chemical additive to steam in the tertiary recovery of heavy oil. Four different alkalis: Sodium hydroxide, sodium silicate, sodium carbonate and potassium hydroxide were added to steam and tested with a 18 ^{o}API .The following results were obtained:

(1) Alkaline solutions of sodium hydroxide and sodium silicate can be employed effectively as a chemical additive in steam flooding.

(2) Alkaline steam flooding can recover between 9 to 14 % more oil than conventional steam flooding.

(3) Optimal temperature range for alkaline steam flooding lies between 250^{o}F and 300^{o}F above which rapid consumption and deterioration of the alkali begins.

(4) The presence of large CO_3^- ions are detrimental to alkaline steam flooding and the dissolution of silica by NaOH will not harm the caustic steam which attributes to the failure and success of the sodium carbonate and sodium silicate floods respectively.

(5) Attainment of very low interfacial tension does not ensure improved oil recovery but a minimum value is necessary for a successful steam alkaline flood.

Tiab, Okoye and Osman (1982) undertook a lab study of the use of caustic soda as a chemical additive in waterflooding and steamflooding in improving tertiary oil recovery. The process was studied using a sandpack saturated with 18^{o}API oil. The sand pack was first waterflooded before all the secondary processes were done and the following observations were made:

(1) Caustic waterflooding is effective when the residual oil saturation after waterflooding is high. When the oil saturation is low, the hot caustic to caustic steam flooding is more effective.

(2) The tendency of steam to override the bottom half of the formation is reduced during caustic steam flooding.

(3) The high recovery from cyclic steam/cool caustic flooding shows more oil can be recovered economically with lower temperature steam or hot water with weak caustic than with high temperature pure steam.

Okoye and Tiab (1985) presented a chemical equilibrium flow model that predicted that the surfactant slug generated insitu increases with temperature and increase in surfactant size recovers the immobile oil leading to higher recovery. They also established that the caustic consumption increases with the increase in the temperature. They predicted a 15 % increase in oil recovery by caustic steam flooding when compared to conventional steam flooding.

Okoye and Haytadavoudi (1990) presented the screening tests that were conducted to determine the feasibility of caustic water flood in Bayou field Louisiana and found that the saponification resulting from 1% by wt. NaOH can increase the oil API gravity by 10 at 320^{o}F.The critical factor for optimal saponification appears to be caustic concentration while elevated temperature merely increase the rate of the reaction. The thermal degradation of caustic oil interaction is severe near the steam temperature. Minimum interfacial tension values are in the temperature range of 120^{o}F to 143^{o}F which will normally occur ahead of the steam zone and the lower part of the formation over ridden

by steam. The displacement results conducted show that the caustic steam flood recovered between 10 to 15 % more of OOIP than conventional steamflood.

Shedid and Abbas (2000) conducted flow experiments to study the surfactant alkaline steam flooding process through vertical wells and concluded that addition of surfactant or alkaline to steam drive improves the oil recovery of the process and surfactant steam flood recovers more oil than alkaline steam flood. A new technique for surfactant alkaline steam flooding was proposed which can be applicable to both waterflooded as well as conventional steam projects.

Fan and Buckley (2006) proposed an improved procedure for measuring acid numbers and also illustrated the results by correlating with the oil/ brine interfacial properties. While standard ASTM measurements use KOH as a titrant for determining acid numbers, substitution of TBAOH for KOH conferred additional stability on the titration results. The crude oil and the blank solutions must be spiked with oil soluble acid such as stearic acid to obtain accurate and repeatable titration end points in non aqueous potentiometric titrations Spiking solution ensures clear end points for small samples of oil taken unlike standard ASTM procedures where more quantity of sample is required.

CHAPTER III

EXPERIMENTAL APPARATUS AND PROCEDURE

This chapter explains the experimental methodology used in my research.

3.1 Apparatus

The schematic diagram of the apparatus that is used for steam injection in the Ramey Laboratory is shown in **Fig. 3.1**. The apparatus may be divided into three systems: fluid injection system, fluid production system and the data logger system. A brief description of each system follows:

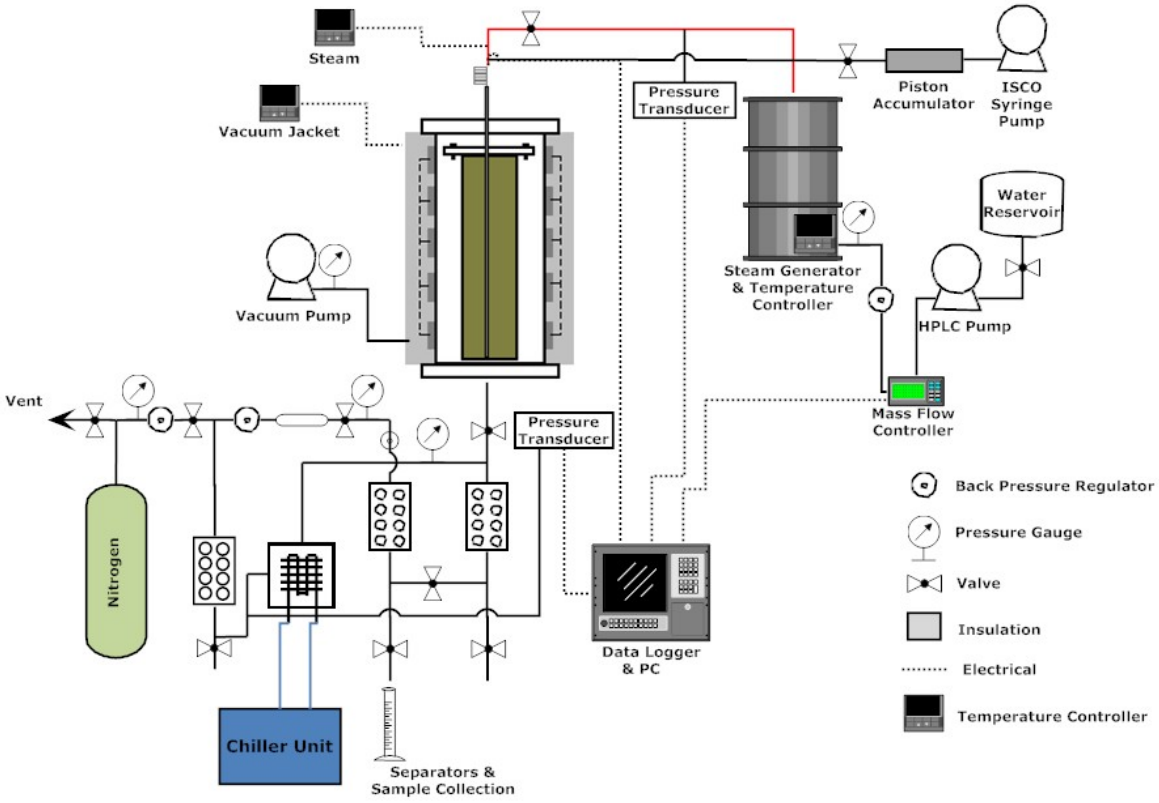

Figure 3.1 - Schematic diagram of the apparatus used for steam injection

3.1.1. Fluid Injection System

The fluid Injection system consists of the following:

(1) Injection cell

(2) Two High Performance Liquid Chromatography Pumps(HPLC)

(3) Steam generator

(4) Accumulator

(5) Water and NaOH reservoirs

The injection cell contains the mixture of sand, water and oil. The cell is made of stainless steel and has length of 67 cm and an outer diameter of 7.4 cm shown in **Fig. 3.2**. The cell containing the mixture is placed in a vacuum jacket around which are wrapped electric heaters. These electric heaters are set to the reservoir temperature by means of a temperature controller. The vacuum jacket is set to the reservoir temperature and the cell is left overnight to ensure that there is uniform temperature throughout the mixture. A thermowell is placed in the longitudinal axis of the injection cell. The thermowell has a metal mesh attached at the bottom end to prevent any sand production. A thermocouple bundle consisting of six thermocouples is placed inside the thermowell. The thermocouples are placed inside a 1/8” tubing (sheath). The thermocouples measure the temperature throughout the length of the cell shown in **Fig. 3.3**. The vacuum jacket is connected to a vacuum pump which creates a vacuum in the annulus between the walls of an injection cell and vacuum jacket. The vacuum acts as an insulator and reduces heat losses during steam injection.

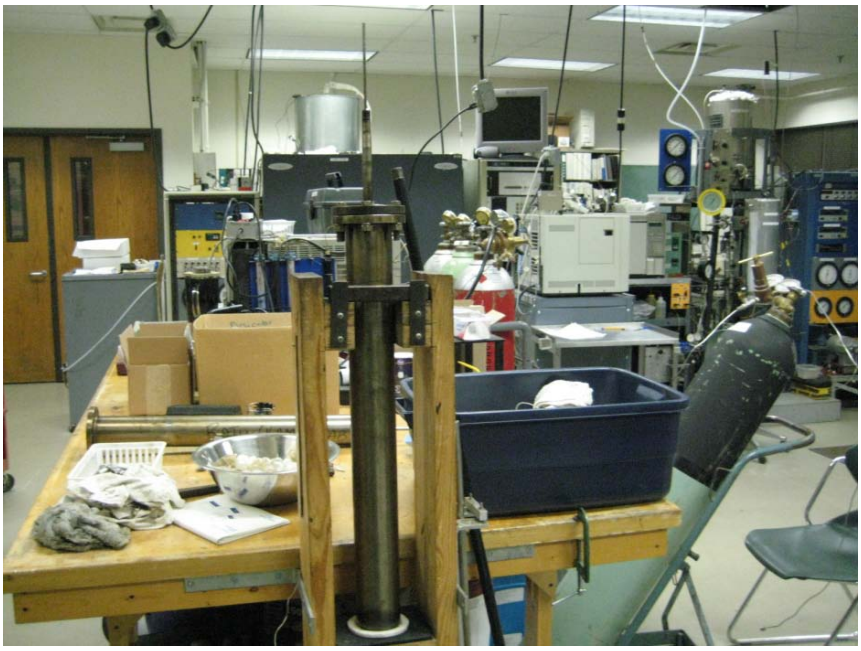

Figure 3.2 – Injection cell tamped with mixture

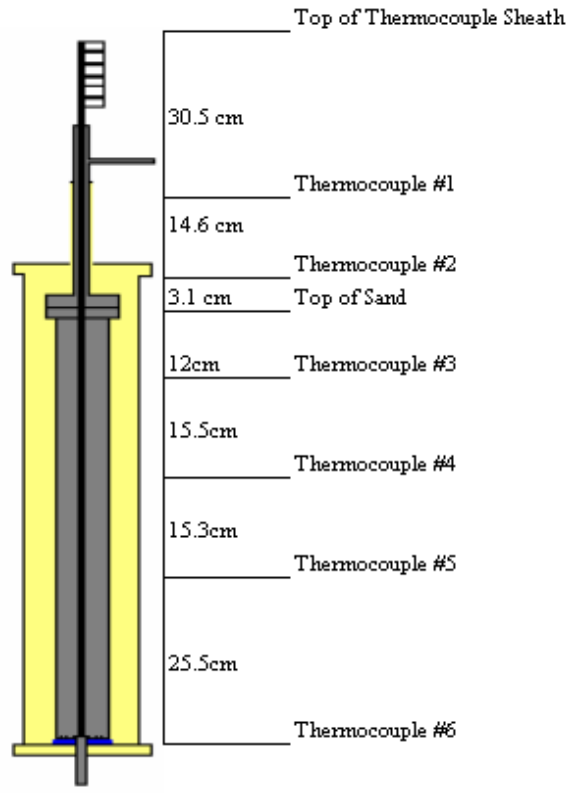

Figure 3.3 – Location of the thermocouples

A constant supply of distilled water and NaOH solution is supplied to the steam generator using a HPLC pump. The pump is set to a desired flow rate and the readings are directly fed into a data logger system. The second HPLC pump in conjunction with an accumulator is used to inject supplementary fluids like NaOH solution directly into the cell bypassing the steam generator, as in slug injection. The steam generator generates the steam at the desired temperature by means of a temperature controller.

3.1.2 Fluid Production System

The fluid production system consists of two separators and a condenser. Fluids from the cell pass through a tubing that is maintained at a temperature of 50^{o}C by means of a

band heater. The cell is maintained at a constant outlet pressure of 20 Psig by means of a back pressure regulator and the use of nitrogen gas. The first separator is connected to a second separator that is pressure regulated by nitrogen gas at constant pressure of 60 psig. Liquid samples are allowed to pass into the second separator and are collected at the bottom of the second separator in graduated tubes at regular intervals. The condenser unit present can be used to collect any condensate and is kept cool with the help of a chiller unit. The separator system is shown in **Fig 3.4.**

Figure 3.4 – Separator system

3.1.3 Data Measurement and Recording System

The various parameters are recorded in a preselected data file .The data logger registers the following

- Injection temperature
- Injection pressure
- Cell profile temperatures

- Outlet pressure
- Water pump rate

A brief description of the main components of the experimental equipment follows:

(1) HPLC pump: Beckman (model 100A) High Performance Liquid Chromatography pump which ensures water is supplied continuously to the steam generator.

(2) HPLC pump: An Alcott High Performance Liquid Chromatography pump is used to inject the sodium hydroxide solution.

(3) Steam Generator: Custom made by Texaco with a maximum pressure of 2000 psig and a maximum temperature of 1200°F that provides the necessary steam of the experiments.

(4) Temperature controllers: A dual circuit temperature controller is used to maintain constant temperature of the steam generator. Other temperature controllers were also used to maintain temperatures for the heating jacket and two band heaters used at the inlet and outlet of the injection cell.

(5) Injection cell: A stainless steel cell that measures 66.5 cm in length and 7.37 cm in diameter. And can withstand a maximum pressure of 500 psig at 1000°F.

(6) Accumulator: A 150 cc stainless steel, high pressure bottle was used to hold the necessary injection fluids.

(7) Heating jacket: A stainless steel cylinder with five steel band heaters and is well insulated to prevent heat loss. It confines the injection cell and the heaters heat the injection cell to reservoir temperature before steam injection and the annulus is

evacuated with a vacuum pump just before steam injection to minimize heat loss during steam injection.

(8) Vacuum pump: used to evacuate the annulus between the injection cell and the heating jacket to minimize heat loss.

(9) Three-stage separation and sampling system: These are used to separate the liquids from the gases and also to sample the production. They consist of three high temperature high pressures transparent glass level gauges. The first separator in connected to the outlet of the injection cell and the backpressure nitrogen line from the top and connects to the second separator from the bottom The second separator is used to collect the liquid sample at pre-selected intervals. The first separator also connects to a condenser to liquefy the gases before they are collected in third separator.

(10) Chiller unit: used to lower the temperature of the condenser between first and third separator.

(11) Data logger: a Hewlett Packard data acquisition unit was used to log the necessary data such as temperature, pressure and injection rate.

3.2 Experimental Procedure

The main steps carried out in a typical experiment are as follows:

First, the steam generator, the pumps, cell and the tubing are cleaned to avoid any contamination and the pressure transducers are calibrated and the data logger system is tested.

Second, the mixture is prepared by mixing for example 5141 g of sand, 226 g of water and 671 g of oil using a predetermined ratio of oil water and sand and is mixed in a

mixer thoroughly. About a handful of the mixture is then put into the cell and is tamped. The process is repeated until the sand mix fills the cell to the top. The cell is weighed before and after tamping to know the exact amount of mixture in the cell. This information combined with fluid and sand densities are used to calculate the pore volume, fluid volumes and saturations within the cell. The injection cell is then pressure tested and ready to be placed in the vacuum jacket. The cell inlet and outlet are connected to the steam generator and separator respectively.

The temperature of the vacuum jacket is set and left overnight to insure the mixture has reached the required reservoir temperature (60°C). The annulus between the cell and jacket is evacuated to insure minimal heat loss during the steam injection. To prevent further heat losses one electrical band heater is wrapped around the tubing connecting the cell inlet and to the outlet of the steam generator. One band heater is also wrapped around the first separator. With the thermocouple placed in the thermowell the cell can now be pressurized (200 psig) using nitrogen gas.

The HPLC pump is set to feed water into the steam generator at a constant rate (5.5 cc/min) that is monitored by a mass flowmeter. Injection into the cell begins once the steam generator reaches its preset temperature (237°C) and pressure (200 psig). The steam injection temperature is maintained by using a temperature controller. Production pressure at the cell outlet is controlled by nitrogen gas supplied through a backpressure regulator.

Water rate, injection pressure, injection temperature, production pressure and cell temperature profile were recorded by the data logger system. The data logger system

records data every 30 second. The data is displayed real time on the computer display to assist in monitoring experimental conditions during the run.

Periodic sampling was carried out from the second separator by enabling flow from the first separator. The samples are centrifuged for 30 minute at 2000 RPM to insure separation of oil and water for proper measurement of production volumes. The oil production is divided into to equal fractions, one of the first half of the production and the other for the remainder part of the production. Oil density and viscosity for the two production samples are measured using an Anton Parr DMA 4100 density meter and a Brookfield rheometer.

Acid number measurements (AN) were made by using a titration method. The solvents used for the titrations was a mixture of 50% toluene (HPLC grade), 49.4% IPA (HPLC Grade) and 0.06 % deionized water. A spiking solution was prepared of 0.02M stearic acid was prepared in the solution above and each AN measurement was spiked with 1 ml of this solution. The titrant used is Tetrabutyl ammonium hydroxide (TBAOH) (Aldrich, 1 M in methanol) diluted to 0.05 M with Ethanol. Titrants were calibrated with a solution of KHP (Aldrich, ACS primary standard) at a concentration of 0.002 M in DDW.Now the EMF readings were measured with a ph meter. A burette was used to deliver titrants at rates of 0.1-0.25 ml/min. Interfacial Tension was measured using a tensionometer for different concentrations of sodium hydroxide and oil.

CHAPTER IV

EXPERIMENTAL RESULTS

4.1 Experimental Conditions

A general overview is presented in this section about the conditions at which the experiments were done. A few parameters were kept constant for all the experiments in order to have a comparison between the runs.

(a) Cell Temperature: 60^{o}C

(b) Water Injection: 5.5 cc/min (CWE)

(c) Steam Temperature: 237^{o}C(superheated by 30^{o}C)

(d) Production pressure: 200 psig

(e) Oil saturation

(i) For all experiments involving San Ardo the oil saturation was about 60%.

(ii) For all experiments involving Duri the oil saturation was about 30 %.

(f) The time involving simultaneous caustic steam injection was around 4 hrs and time for caustic injected as slug was around 7 hrs.

For all the experiments a standard procedure was followed in preparing the mixture, tamping it into the cell and then conducting the experiments to ensure that the saturations of the oil remain the same. The saturations of air, oil and water for all the runs are shown in **Table 4.1**.

The following runs will be explained in this chapter:

(a) Run 1: Base run for San Ardo Oil using pure steam

(b) Run 2: Pure steam with NaOH (0.1 wt %) for San Ardo oil

(c) Run 3: Base run for Duri oil using pure steam

(d) Run 4: Pure steam with NaOH (0.1 wt %) for Duri oil

(e) Run 5: Pure steam with NaOH (1 wt %) for Duri oil

(f) Run 6: Cyclic Injection of NaOH (1 wt %) and steam for San Ardo oil.

(g) Run 7: Pure steam Injection NaOH (1 wt %) for San Ardo oil.

The calculations for the cell mixture are presented in **Appendix A**. The data-logger results, production data and produced oil analysis data are shown in **Appendix B, C and D** respectively.

Table 4.1 - Injection cell mixtures for run 1 to run 7

	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7
Sand, g	5141	5141	5141	5141	5141	5141	5141
Water, g	226	226	226	226	226	226	226
Oil, g	671	671	365	365	365	365	671
So, frac	0.59	0.58	0.288	0.3	0.29	0.54	0.57
Sw, frac	0.2	0.22	0.17	0.17	0.17	0.18	0.2

For each of the runs the following experiments the following data will be presented:

(a) Temperature profile for each of the thermocouples

(b) Injection and production pressure profiles

(c) Oil and water production

(d) Viscosity and density readings

(e) Average steam front velocity

For each of the oils the acid number measurements and the interfacial tension measurements with different concentrations of NaOH are also presented.

4.2 Run 1: Base Run for San Ardo Oil Using Pure Steam

For the base run only pure steam was injected by means of the steam generator into the injection cell. The temperature profile for the pure steam is shown in **Fig. 4.1**.

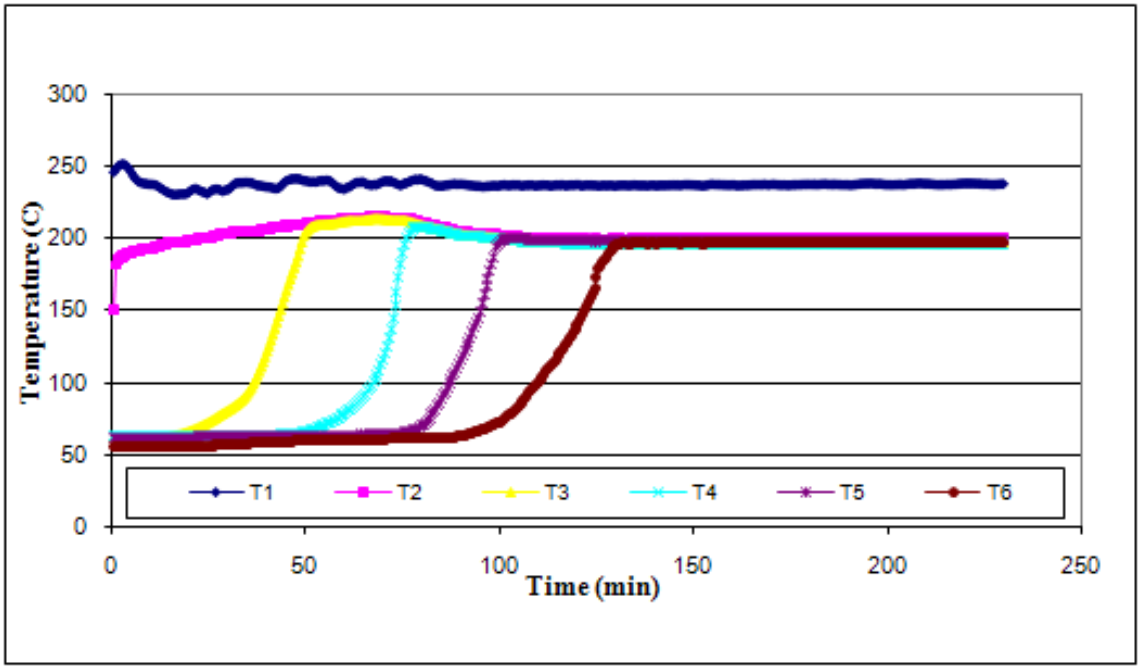

Figure 4.1 - Temperature profile for run 1

From the temperature profile we see that the thermocouples attain a constant temperature after about 135 min indicating the steam front reaching the bottom of the cell. The pressure profiles for run 1 are also plotted and shown in **Fig. 4.2**.

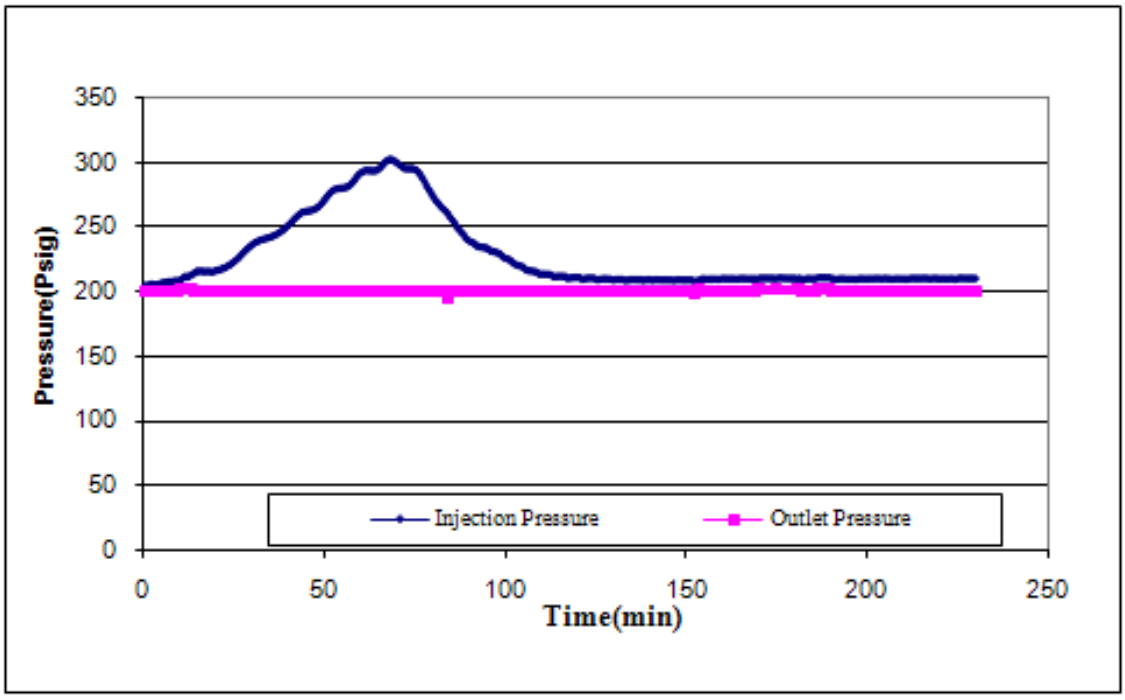

Figure 4.2 - Pressure profile for run 1

From the pressure profile we see that the outlet pressure is maintained at a constant pressure of 200 psi and the injection pressure reaches a maximum value of 306 psi. The increase in the injection pressure is attributed to the oil bank in the cell and the once the oil bank is pushed and starts producing the injection pressure decreases and reaches a minimum value of 206 psi.

The production profiles for oil and water are shown in **Fig. 4.3.** For the oil production curve we see that the maximum production rate is 9 cc/min and in the water production the maximum value for the water production is 9.25 cc/min.

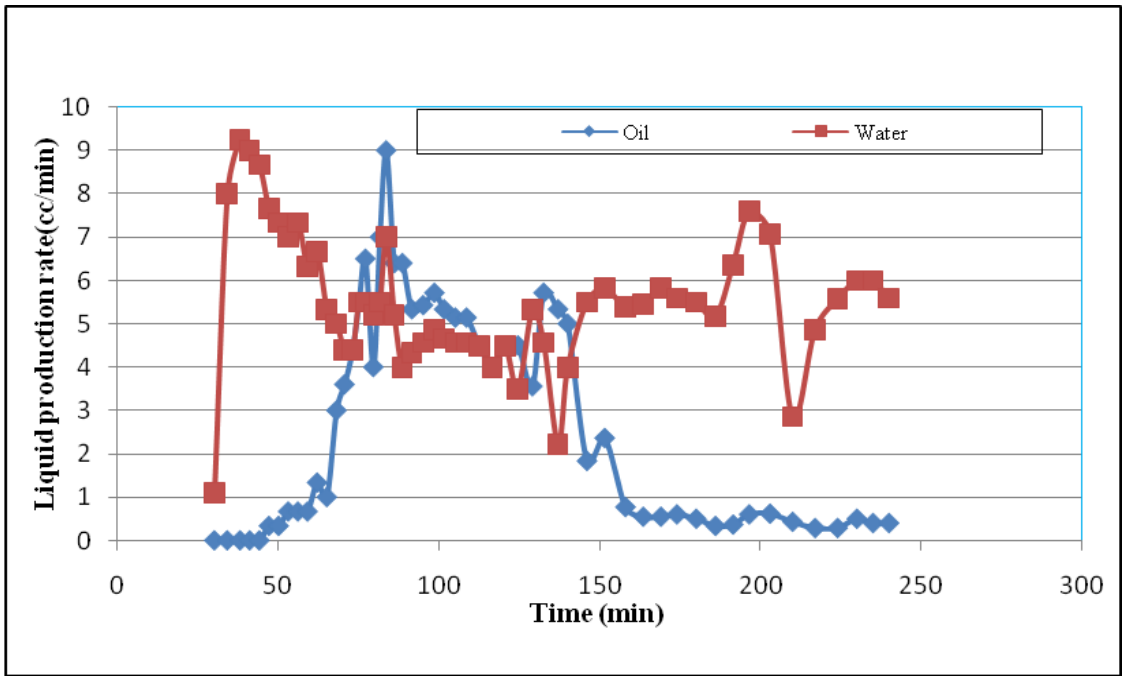

Figure 4.3- Liquid production rates for run 1

The total oil produced in the run was about 460 cc which represents 75.3 % of the original oil in place. The recovery versus time is plotted in **Fig. 4.4 and Fig. 4.5** shows the recovery versus pore volume of steam injected.

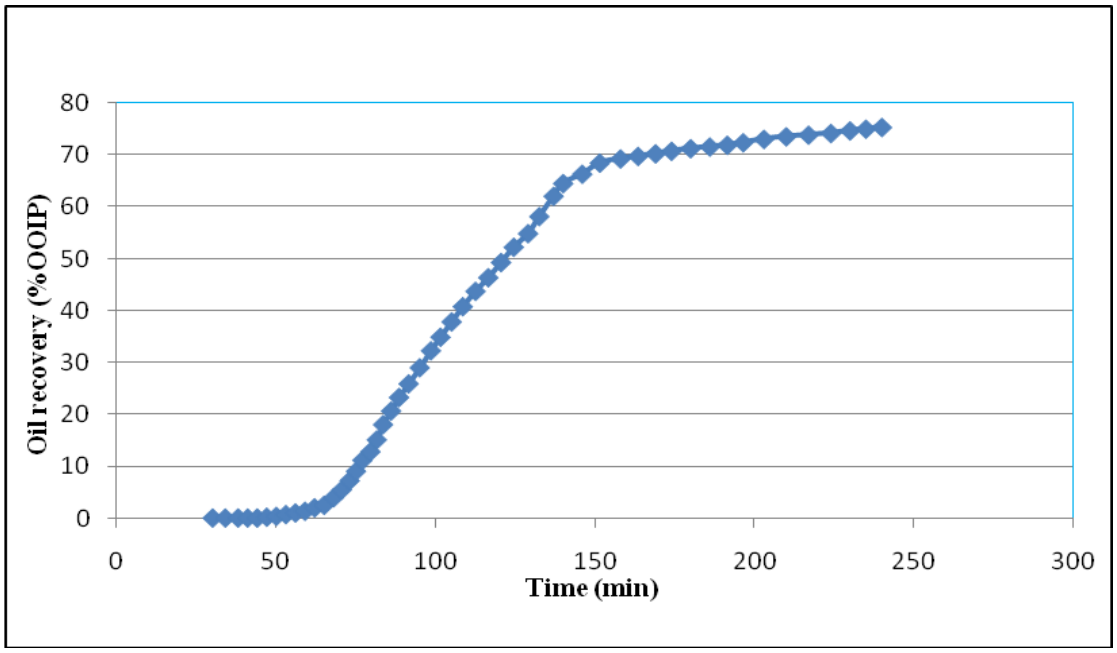

Figure 4.4 - Oil recovery versus time for run 1

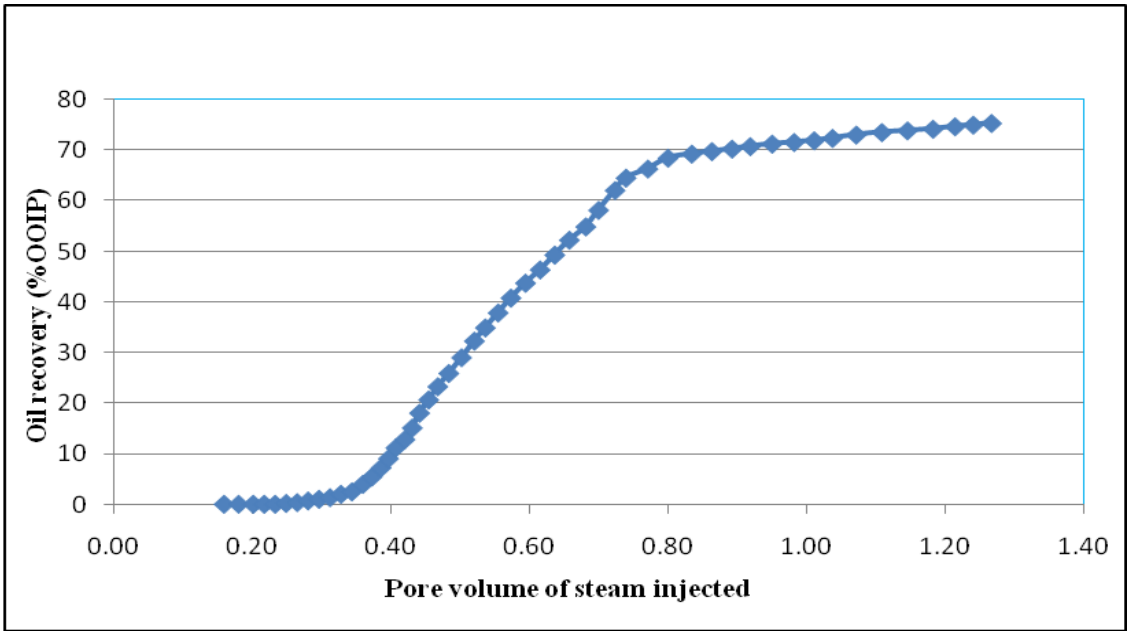

Figure 4.5 - Oil recovery versus pore volume of steam injected for run 1

The steam front velocity for Run 1 is shown in **Fig. 4.6.**

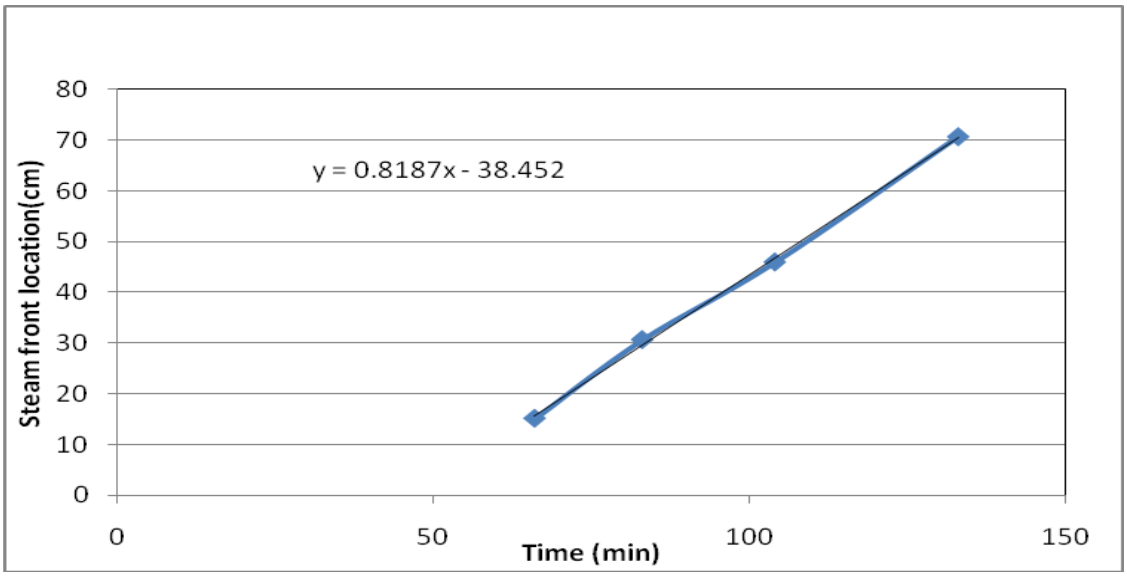

Figure 4.6 – Steam front velocity for run 1

The viscosity and the density readings are shown in **Table 4.2**.

Table 4.2-Viscosty and density readings for run 1

Run 1 (Pure Steam –San Ardo)			
Density (^{o}API)	Initial	Middle	Final
	14	14.7	16
Temperature (^{o}C)	Viscosity (cp)		
40	5632	4400	2214
50	2976	2106	1875
60	1400	1189	870

4.3 Run 2: Steam with NaOH (0.1 wt %) for San Ardo Oil

For run 2 sodium hydroxide (0.1 wt %) was injected into the cell along with the steam. The temperature profile for run 2 is shown in **Fig. 4.7.**

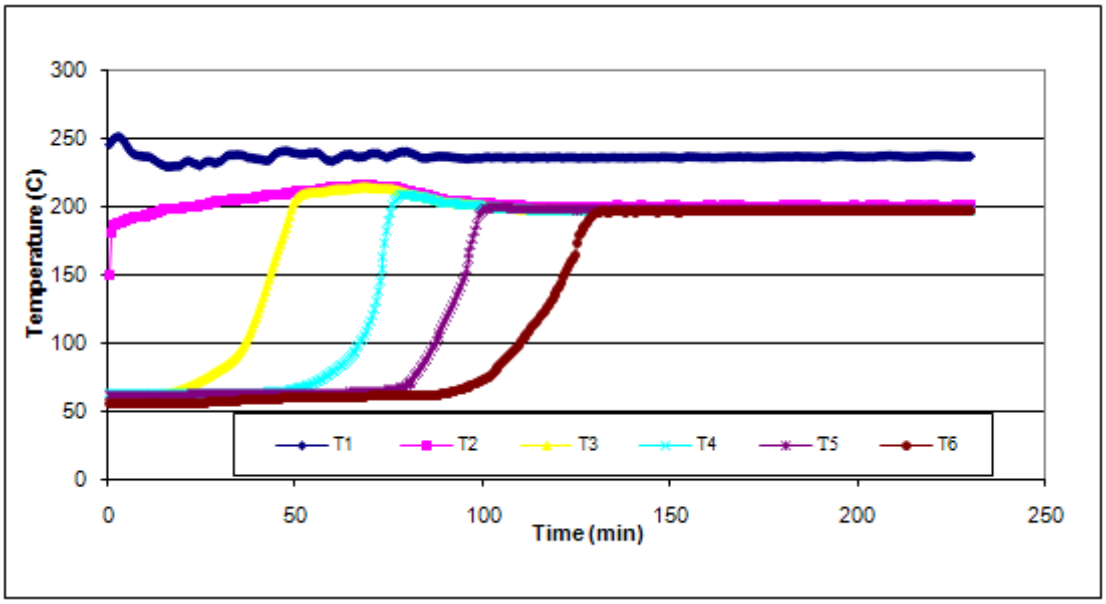

Figure 4.7 - Temperature profile for run 2

The thermocouples reach the constant temperature value at 125 min which is the saturated temperature of 200^{o}C. The pressure profiles are shown in **Fig. 4.8.** From the pressure profile it is seen that the maximum pressure is around 310 psig and at the end of the run when the oil is produced it reduces to 206 psig. The oil and water rates are shown in **Fig. 4.9** and the maximum oil rate is 7 cc/min and for maximum water rate is 11.75 cc/min.

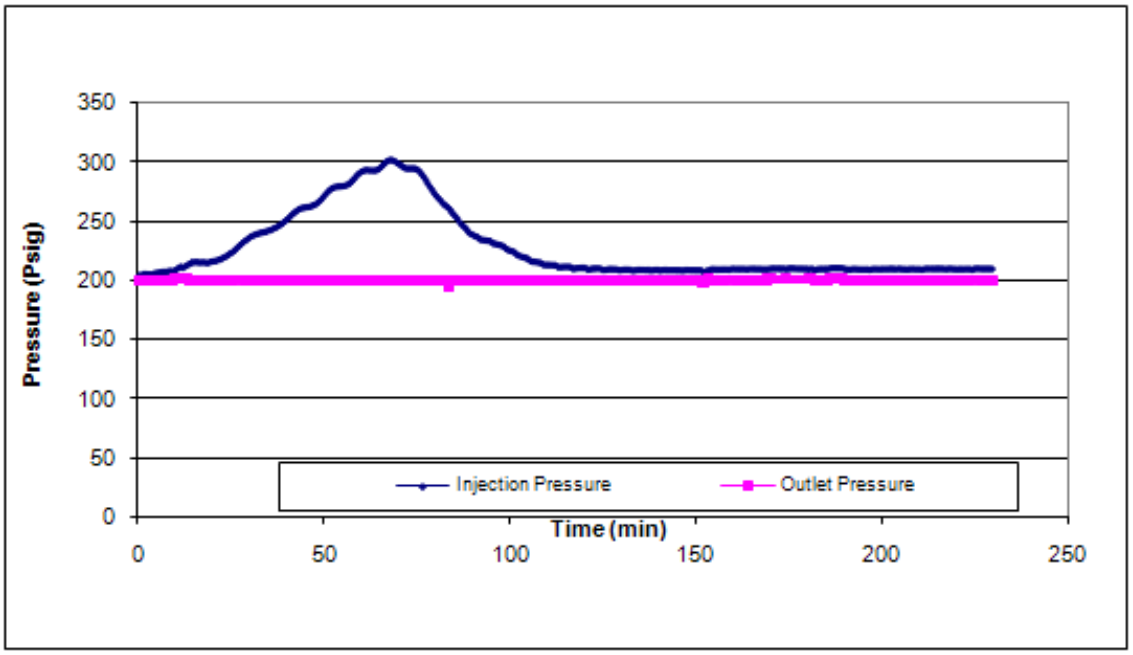

Figure 4.8 - Pressure profile for run 2

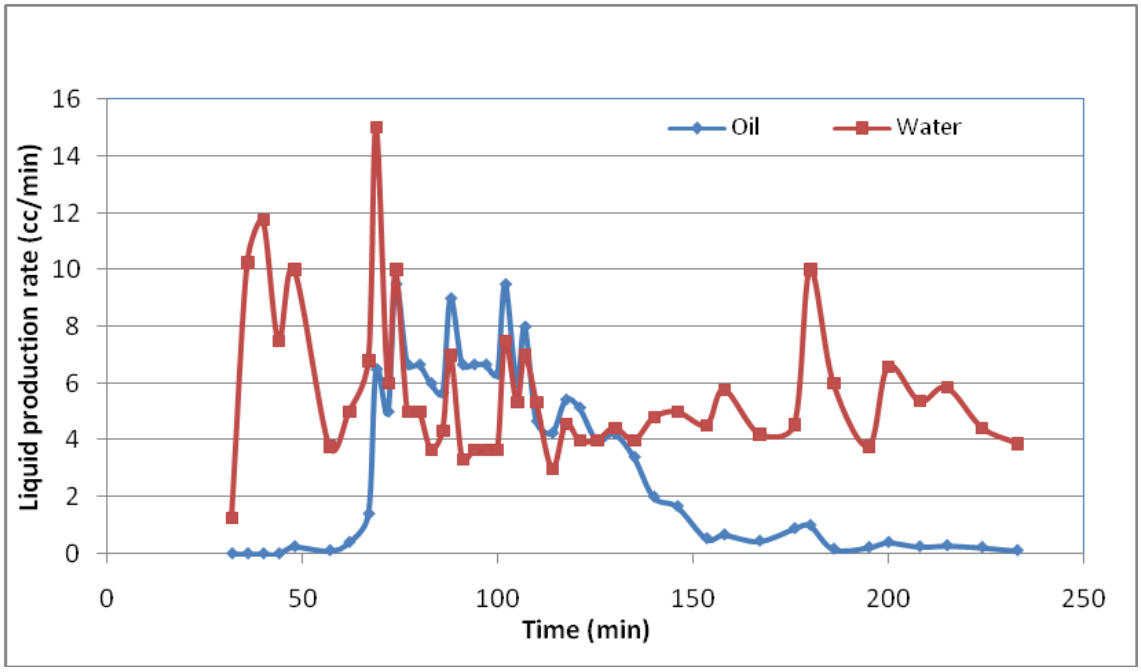

Figure 4.9 - Liquid production rates for run 2

The total oil recovered from the steam-NaOH injection is 462 cc. **Fig. 4.10** showing the oil recovered with respect to time indicates 75. 7 % OOIP is recovered. The recovery factor plotted against pore volume is shown in **Fig. 4.11.**

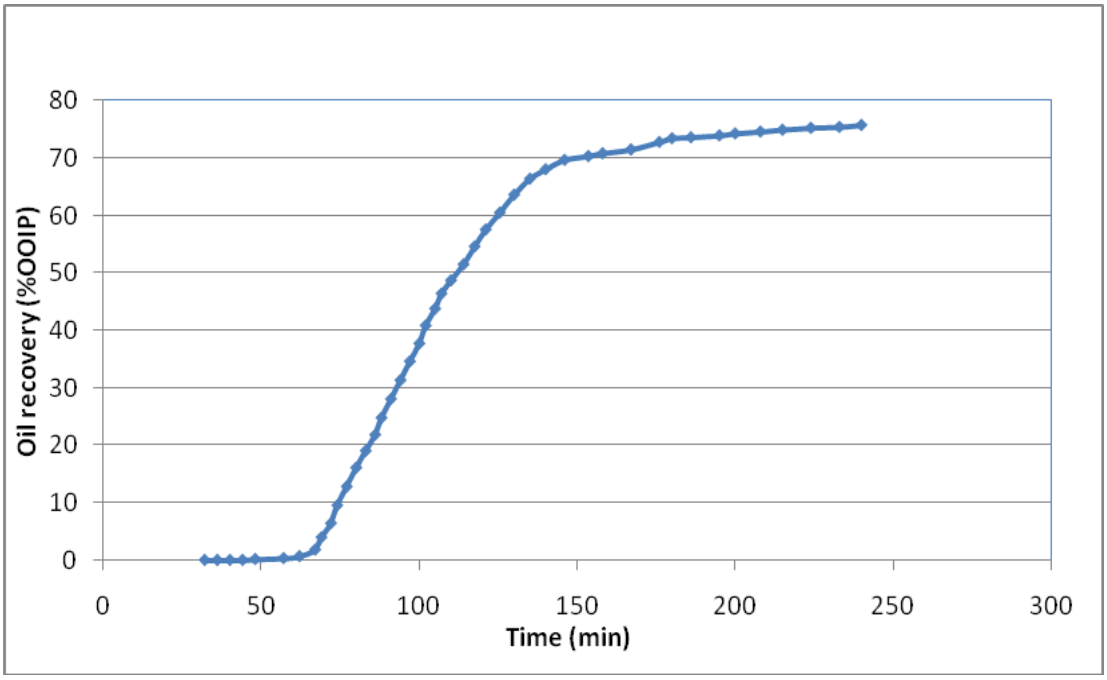

Figure 4.10 - Oil recovery versus time for run 2

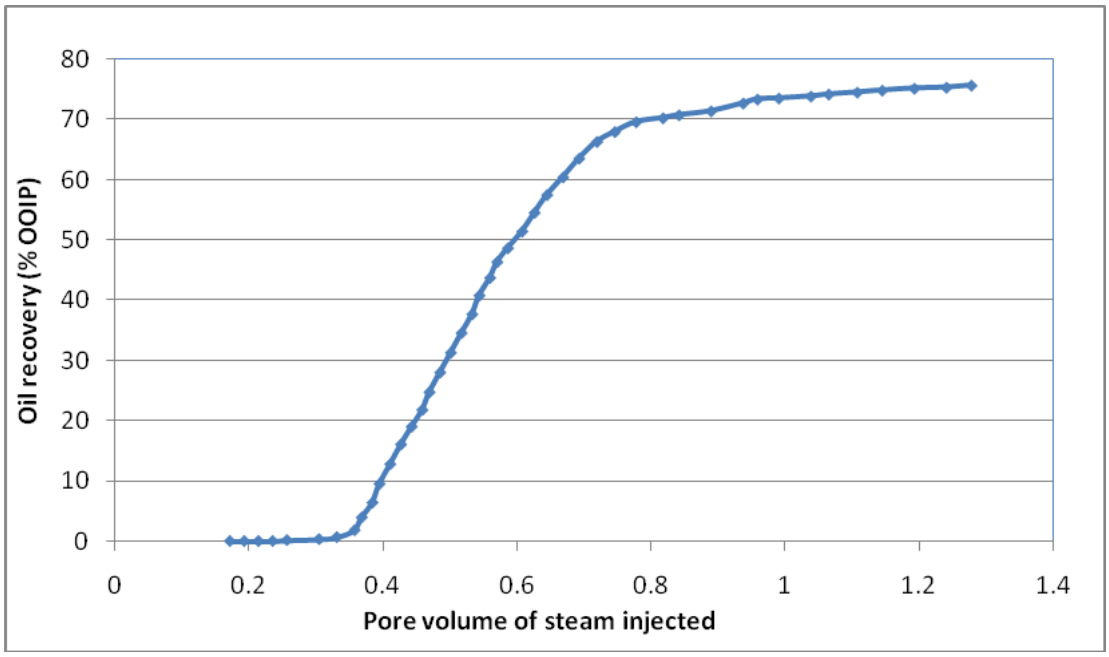

Figure 4.11-Oil Recovery versus pore volume of steam injected for run 2

The steam front velocity for the steam-NaOH is shown in **Fig 4.12.**

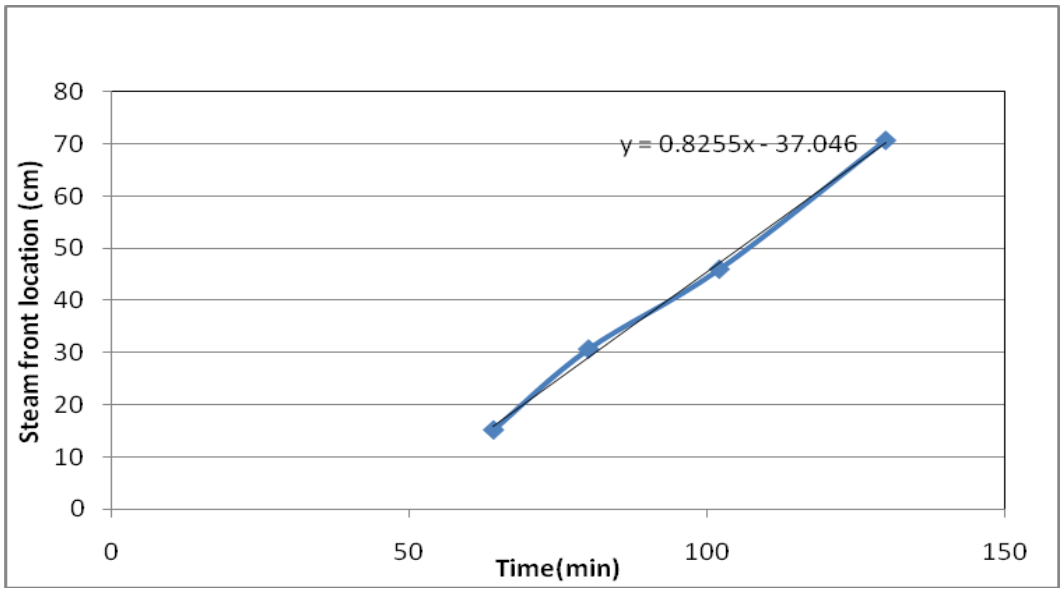

Figure 4.12 - Steam front velocity for run 2

The viscosity and density readings for run 2 are shown in **Table 4.3.**

Table 4.3-Viscosity and density readings for run 2

Run 2 (Steam+NaOH-San Ardo)			
Density (^{o}API)	Initial	Middle	Final
	14.2	15	16.6
Temperature (^{o}C)	Viscosity (cp)		
40	4812	3900	2006
50	2700	2000	1589
60	1346	980	700

4.4 Run 3: Base Run for Duri Oil Using Pure Steam

For Run 3 Duri oil is used which is lighter oil when compared to San Ardo. Pure steam is injected into the injection cell. The mixing ratios for Duri oil are also presented in **Appendix A**.

The temperature profile for run 3 is shown in **Fig. 4.13.** It is seen that the thermocouple reach a constant temperature at 120 min.

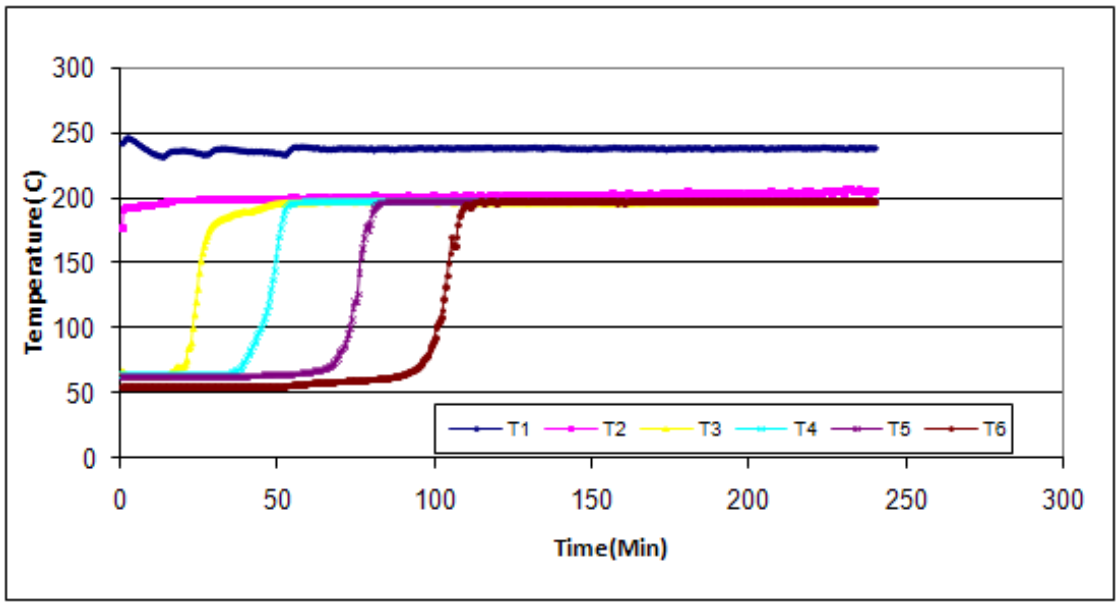

Figure 4.13 - Temperature profile for run 3

The pressure profile for run 3 is shown in **Fig. 4.14.** From the pressure profile we see that the maximum injection pressure reaches around 210 psi. The outlet pressure is maintained constant at 200 psi. The oil and water production rates are plotted in **Fig. 4.15** and the maximum oil production rate is 4 cc/min and the maximum water production rate is 11.5 cc/min.The oil recovered is 174 cc and accounts for 52 % of the

original oil in place. **Fig. 4.16** shows the recovery of oil with respect of time. **Fig. 4.17** shows the oil recovery with respect to the pore volume. The steam front velocity is shown in **Fig. 4.18.**

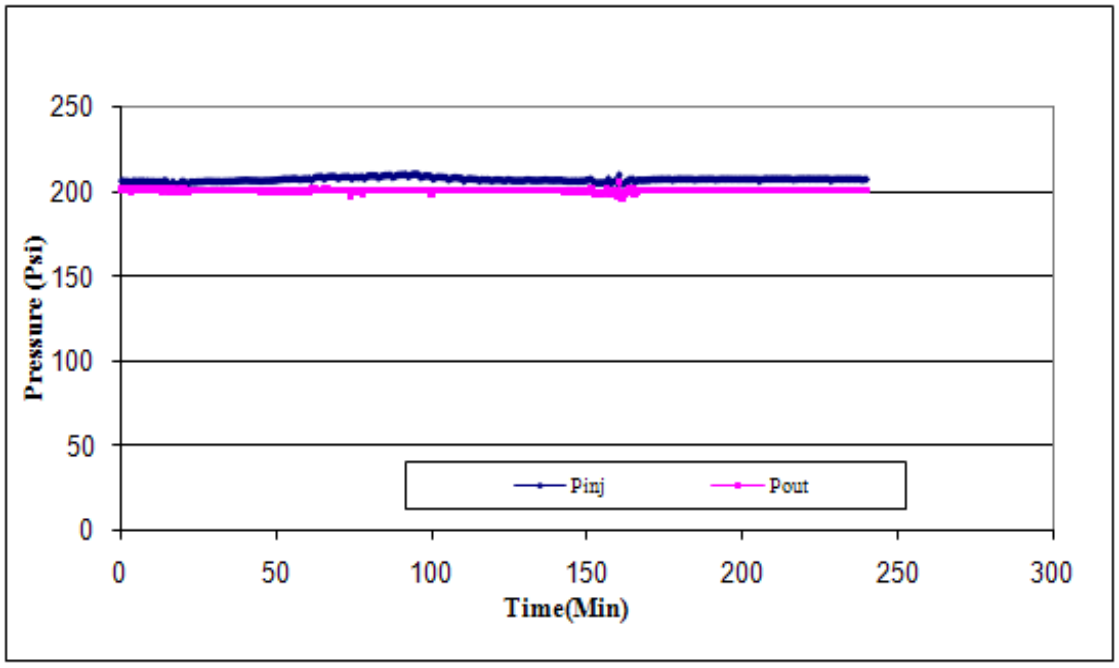

Figure 4.14 - Pressure profile for run 3

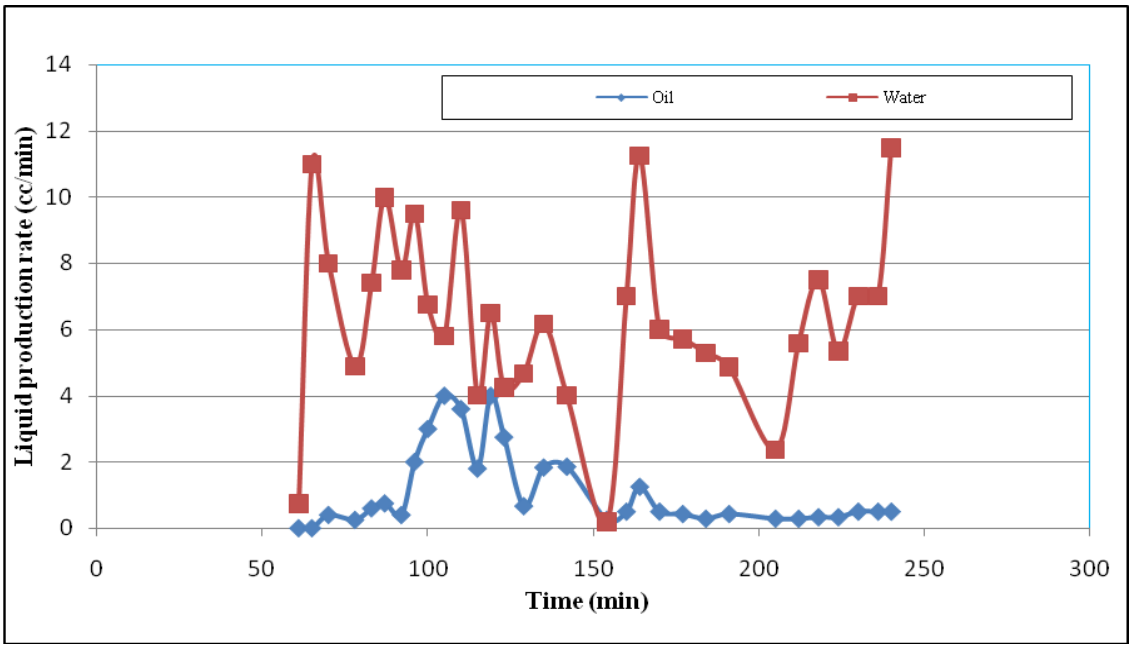

Figure 4.15 - Liquid production rates for run 3

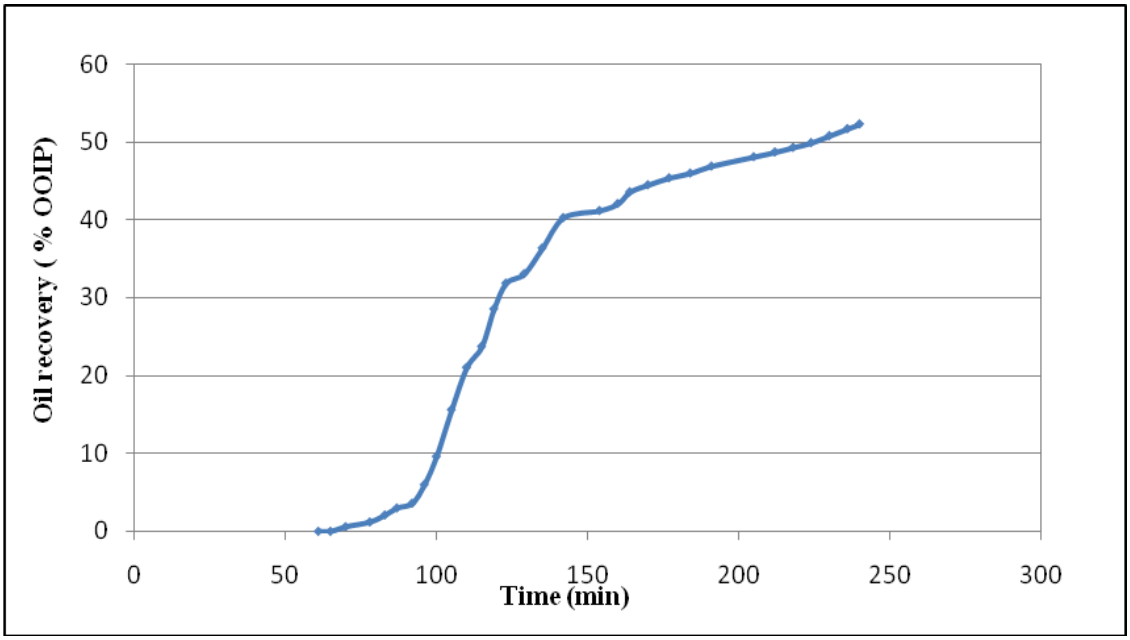

Figure 4.16 - Oil recovery versus time

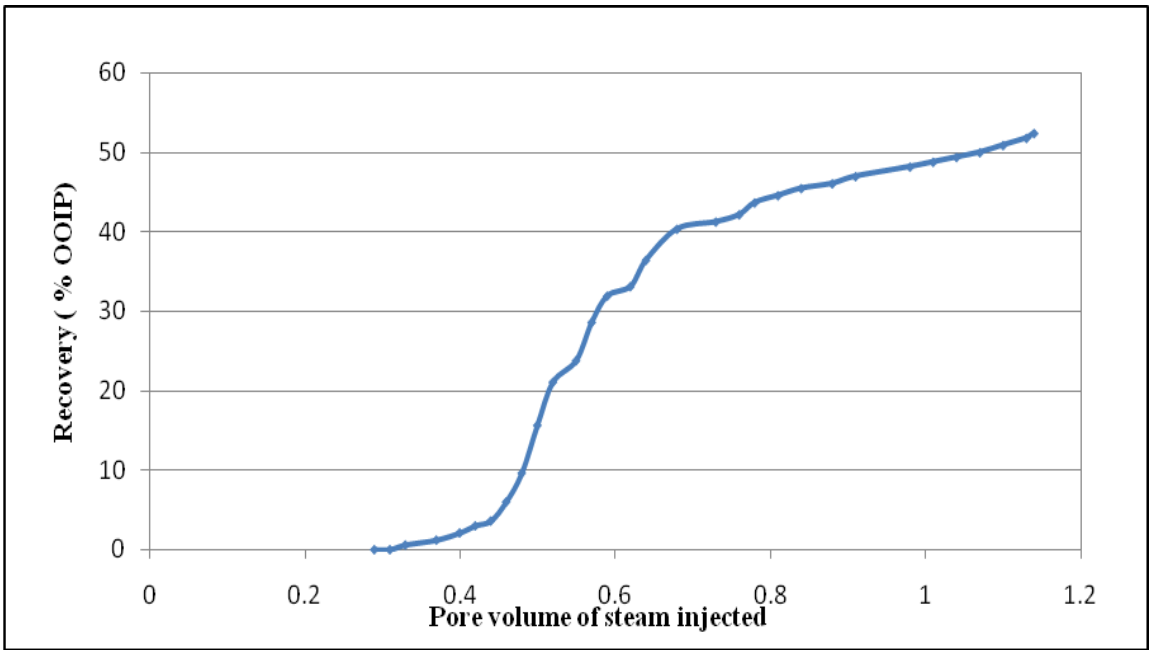

Figure 4.17-Oil recovery versus pore volume for run 3

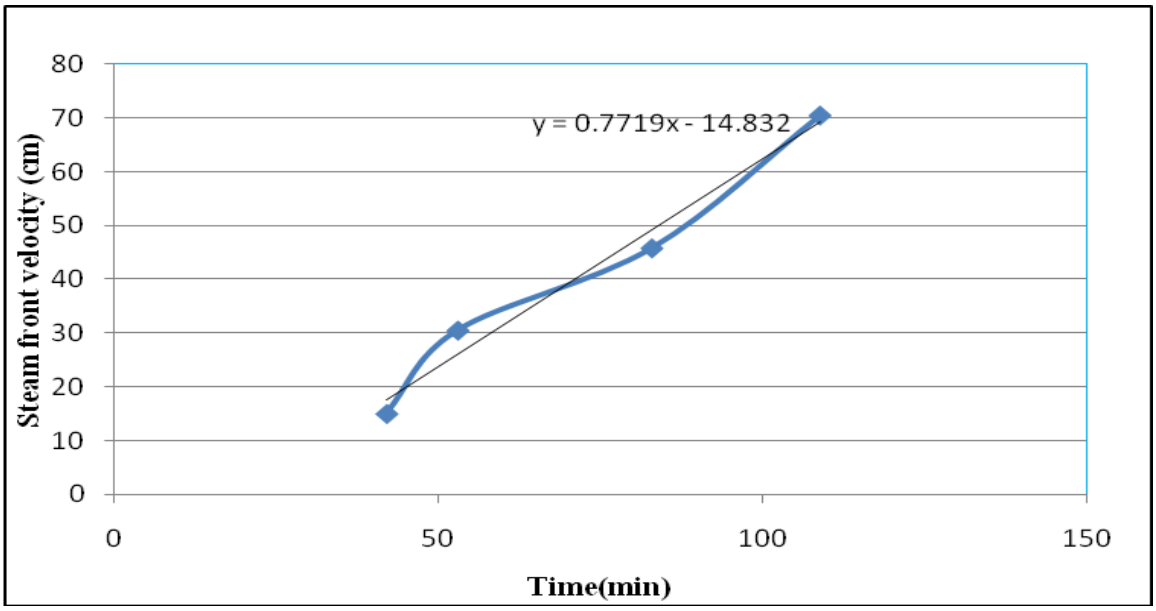

Figure 4.18 - Steam front velocity for run 3

The viscosity and density for Run 3 are shown in **Table 4.4.**

Table 4.4-Viscosity and density readings for run 3

Run 3 (Pure Steam –Duri Oil)			
Density (^{o}API)	Initial	Middle	Final
	20.41	21.6	21
Temperature (^{o}C)	Viscosity (cp)		
40	147	124	100
50	108	100	70
60	82	78	63

4.5 Run 4: Pure Steam with NaOH (0.1 wt%) for Duri Oil

For Run 4 steam was injected with 0.1 wt % NaOH and the temperature profile is shown in **Fig. 4.19**. The pressure profiles for run 4 are shown in **Fig. 4.20.** The production profiles for oil and water are shown in **Fig. 4.21.** With the 0.1 wt% NaOH the quantity of Duri oil recovered is 182 cc which is 53.2% of the original oil in place. **Fig. 4.22** shows the oil recovered with respect to time and **Fig. 4.23** shows the oil recovered with respect to pore volume. The steam front velocity is shown in **Fig. 4.24.**

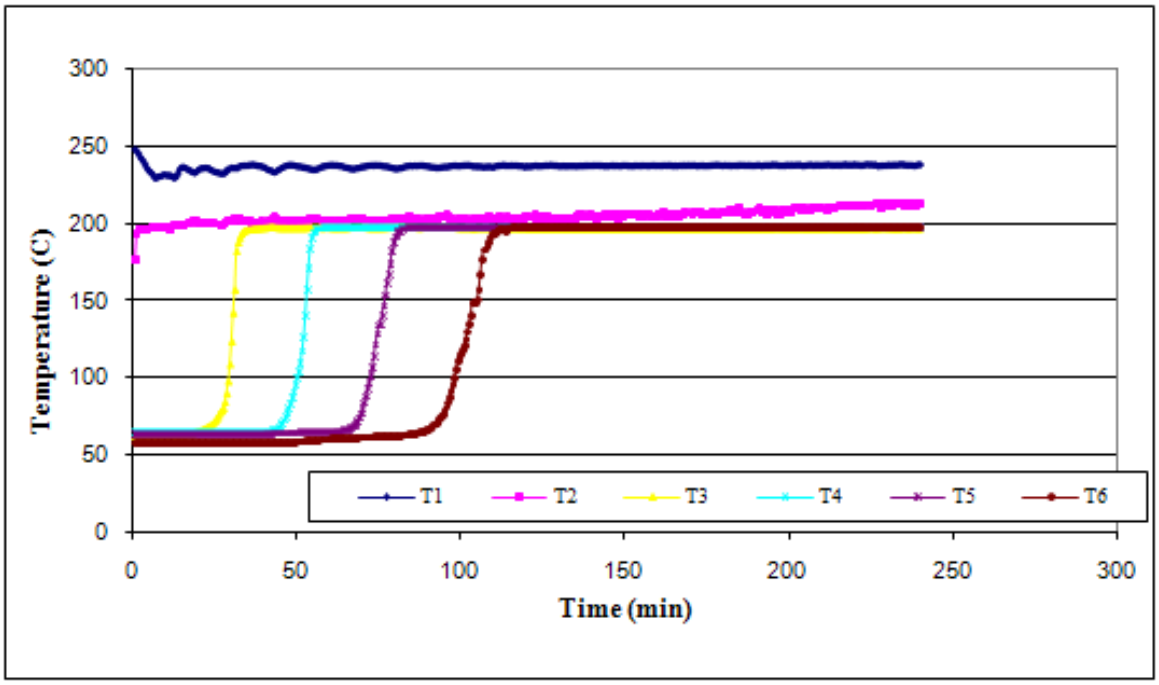

Figure 4.19 - Temperature profile for run 4

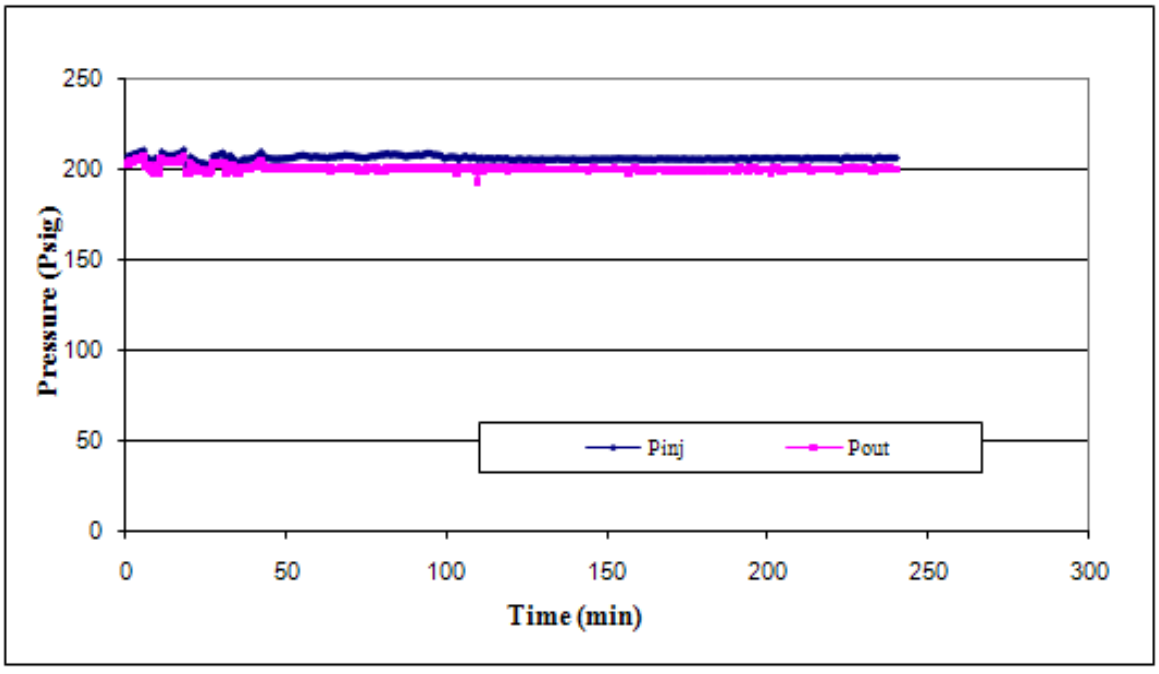

Figure 4.20 - Pressure profile for run 4

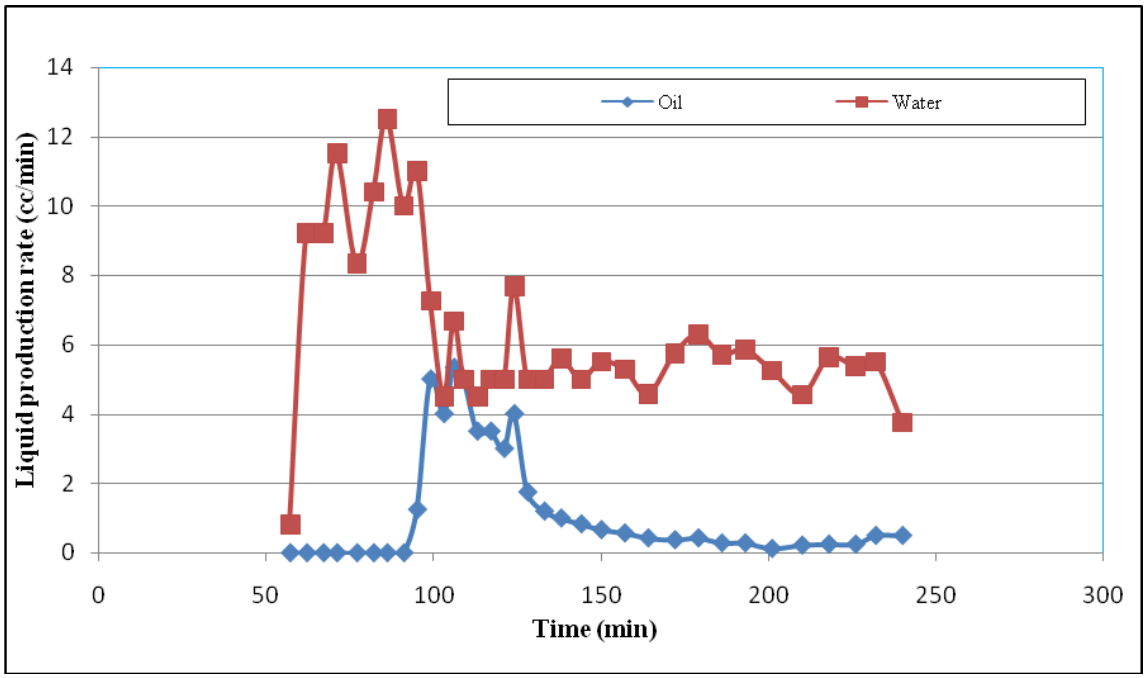

Figure 4.21 - Liquid production rates for run 4

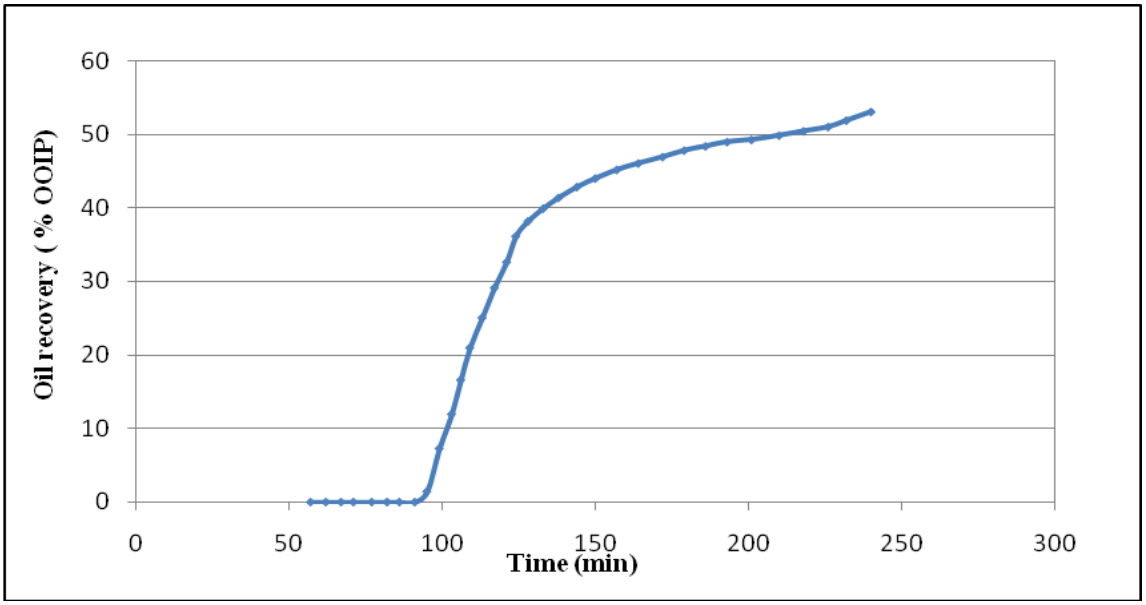

Figure 4.22 - Oil recovery versus time for run 4

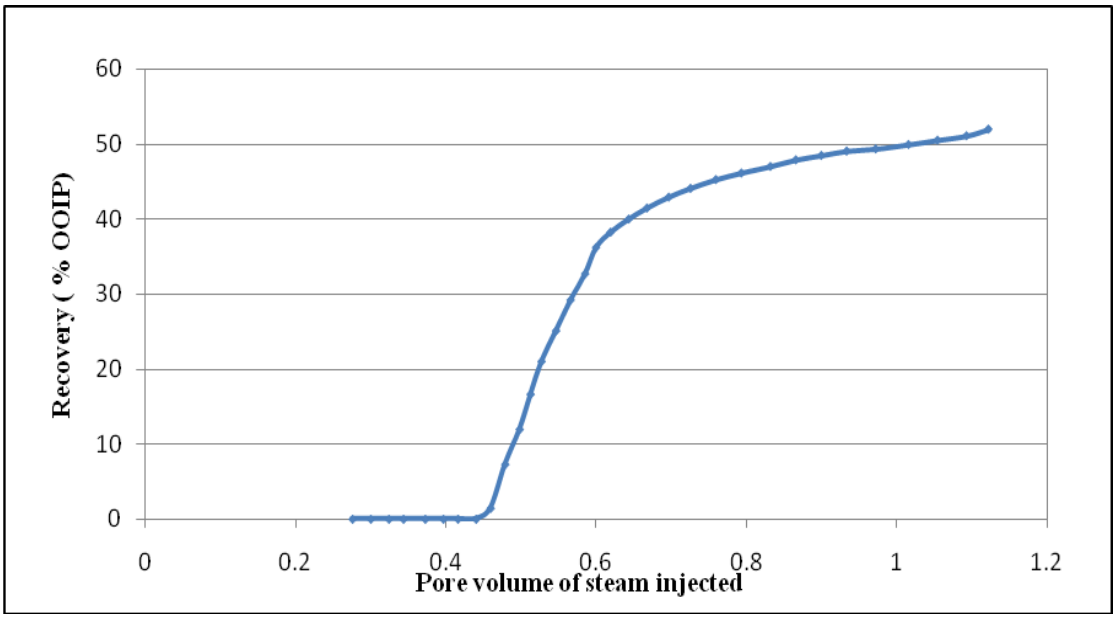

Figure 4.23 - Oil recovery versus pore volume of steam injected for run 4

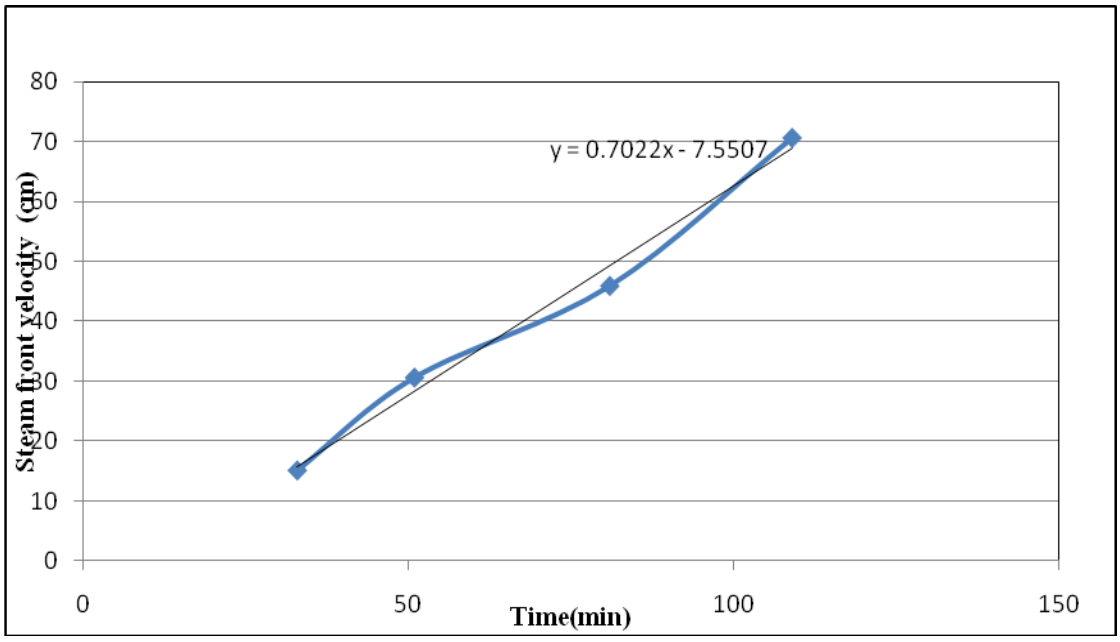

Figure 4.24-Steam front velocity for run 4

The viscosity and density for Run 4 are shown in **Table 4.5.**

Table 4.5-Viscosity and density readings for run 4

Run 4 (Steam+NaOH(0.1 wt %)-Duri Oil)			
Density (^{o}API)	Initial	Middle	Final
	20.4	21	21.3
Temperature (^{o}C)	Viscosity (cp)		
40	150	132	120
50	132	120	106
60	110	78	60

4.6 Run 5: Pure Steam with NaOH (1 wt %) for Duri Oil

For Run 5 steam was injected along with 1 wt % NaOH and the temperature profiles are shown in **Fig. 4.25.** The pressure profiles are shown in **Fig. 4.26.** The production profiles for both oil and water are plotted in **Fig. 4.27**. The maximum oil rate is 4.7 cc/min and the maximum water rate is 13.67 cc/min. The oil recovered is 199 cc which is 59 % of the original oil in place which is shown in **Fig. 4.28** and the recovery versus the pore volume is shown in **Fig. 4.29**. The steam front velocity is shown in **Fig. 4.30.**

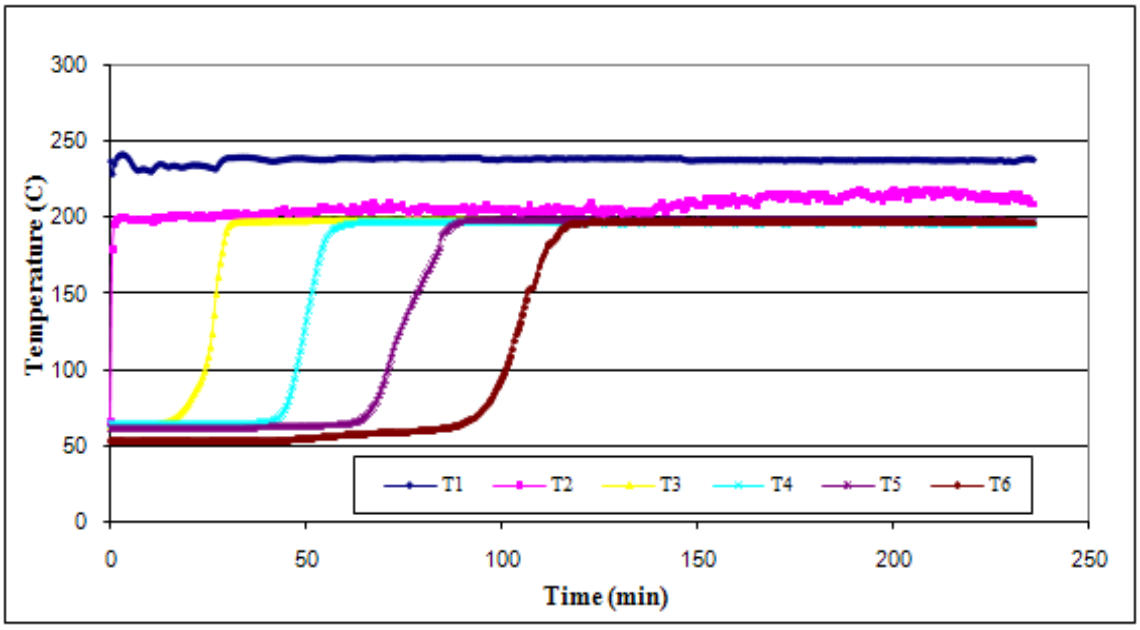

Figure 4.25 - Temperature profile for run 5

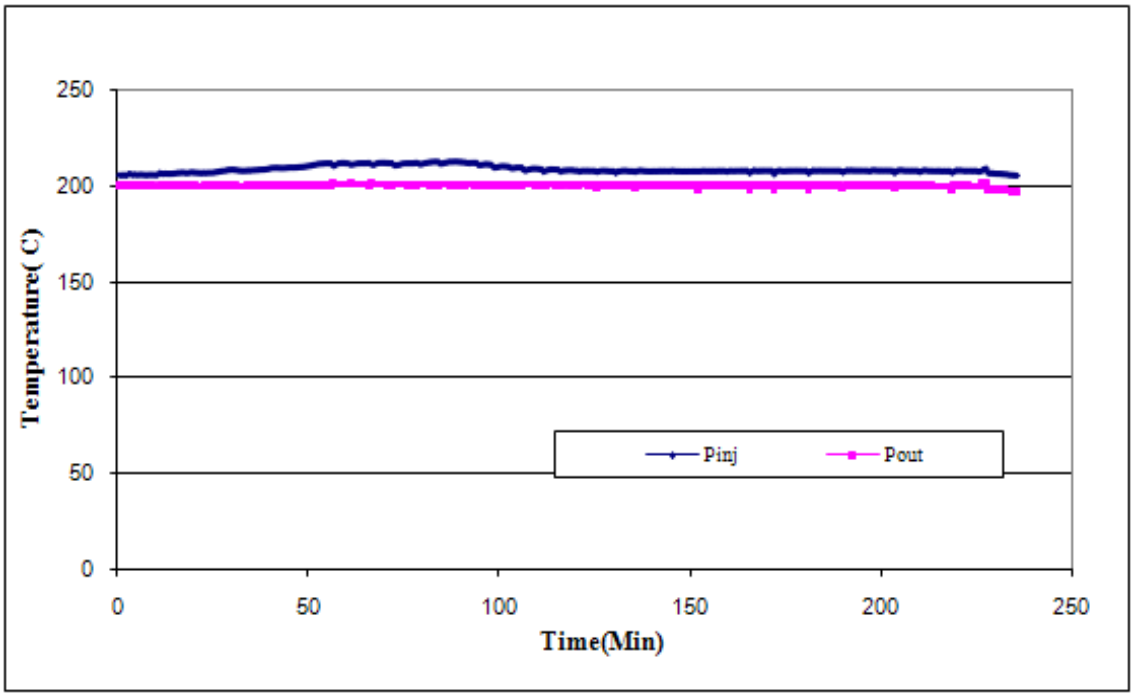

Figure 4.26 - Pressure profile for run 5

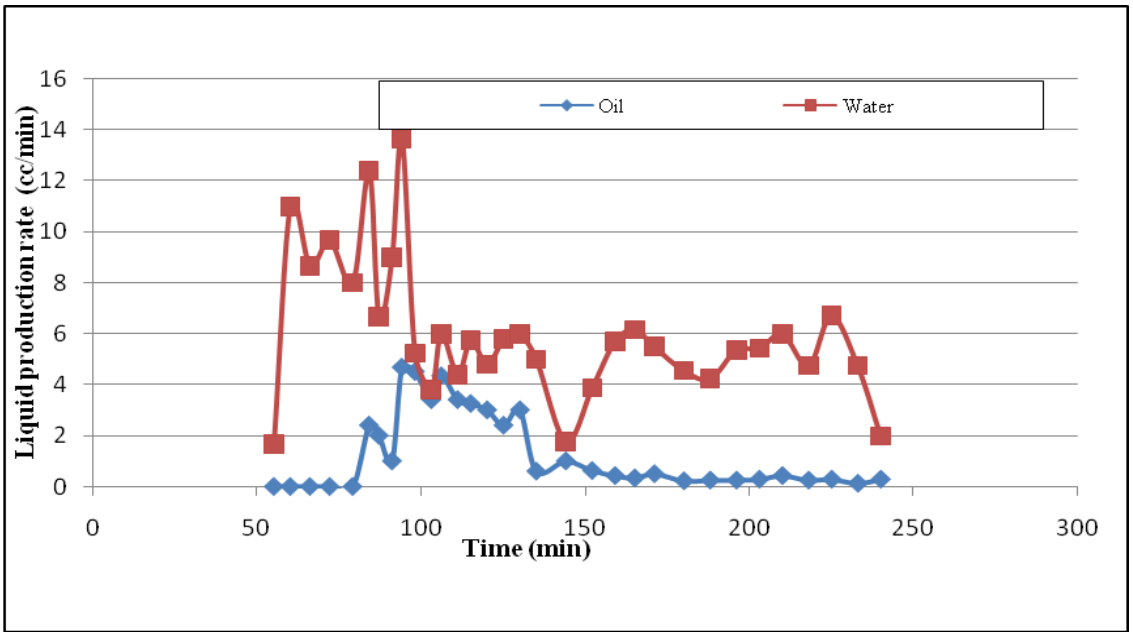

Figure 4.27 - Liquid production rates for run 5

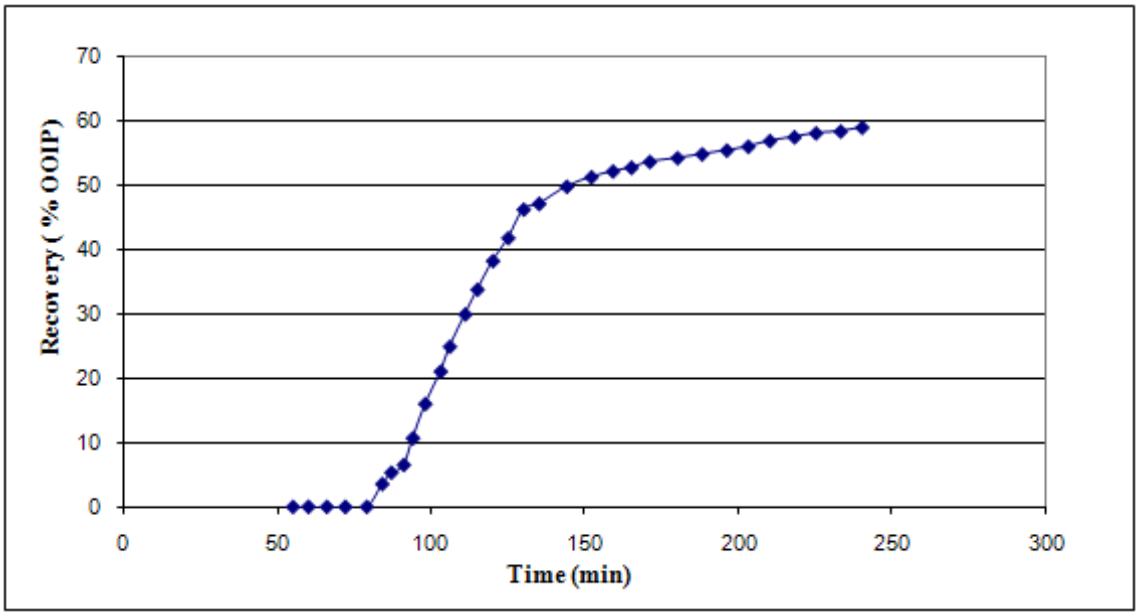

Figure 4.28- Oil recovery versus time for run 5

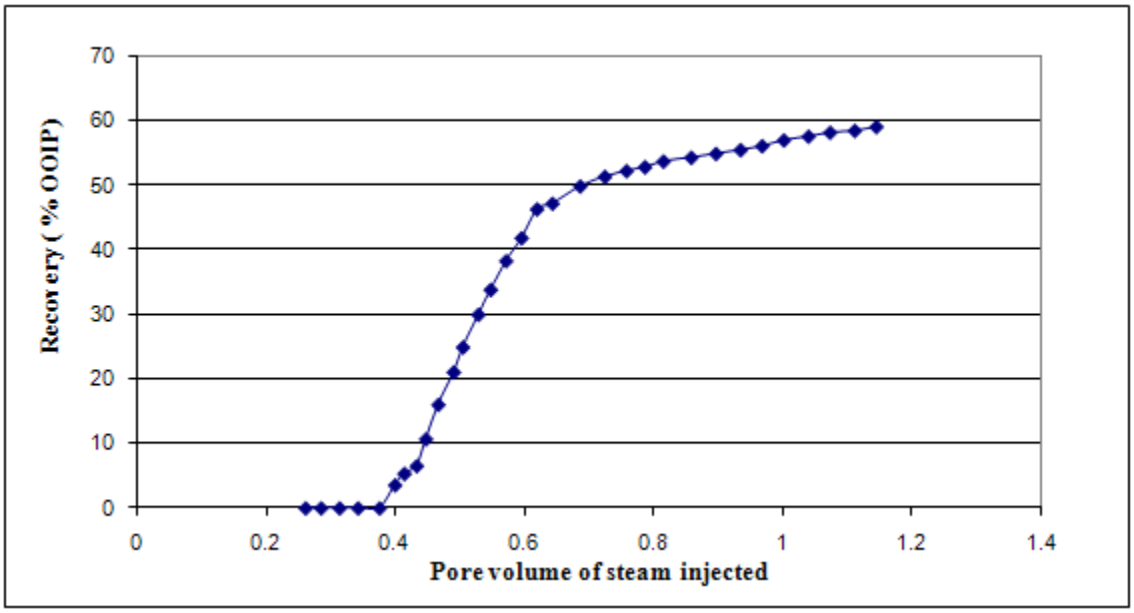

Figure 4.29- Oil recovery versus pore volume of steam injected for run 5

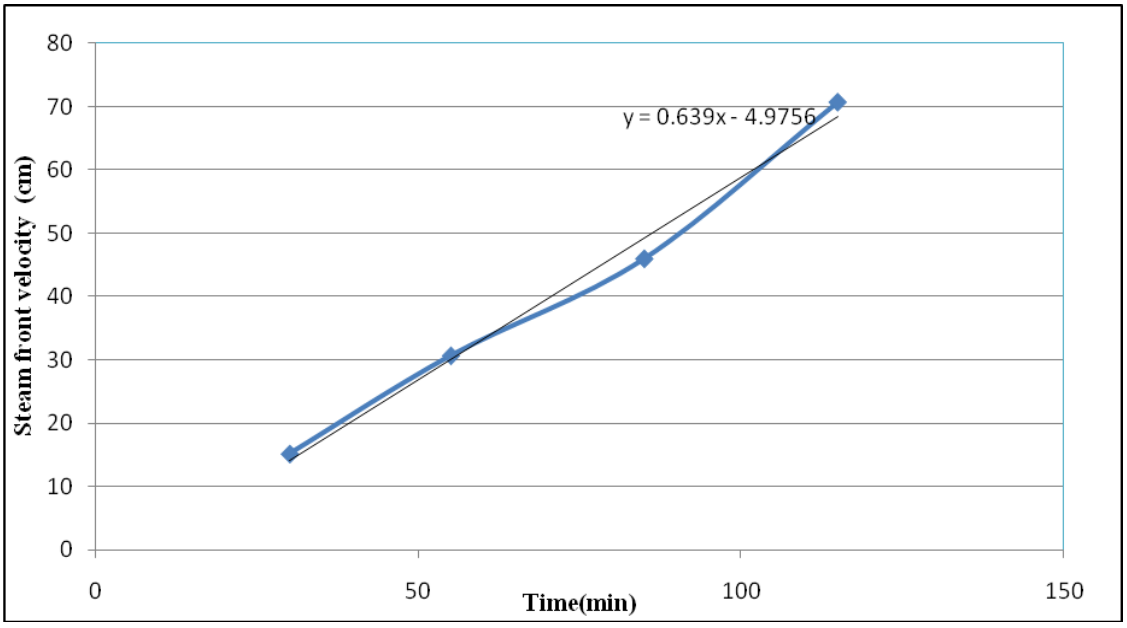

Figure 4.30- Steam front velocity for run 5

The viscosity and density reading for Run 5 are shown in **Table 4.6.**

Table 4.6-Viscosity and density readings for run 5

Run 5 (Steam+NaOH(1 wt %)-Duri Oil)			
Density (^{o}API)	Initial	Middle	Final
	20.4	21.2	21.6
Temperature (^{o}C)	Viscosity (cp)		
40	160	130	118
50	135	118	107
60	112	80	62

4.7 Run 6: Cyclic Injection of NaOH (1 wt %) and Steam for San Ardo Oil

For Run 6 1 wt % NaOH is injected after 4 hrs of steam injection. NaOH is injected for 25 min and 120 cc of solution is injected and then the sandpack is steamflooded again for an hr. The second cycle of NaOH is injected for 25 min and the sandpack is steamflooded again for around 1.5 hrs. The temperature profiles that are obtained are shown in **Fig. 4.31.** The pressure profile is shown in **Fig. 4.32.** From the temperature and pressure profile we see that the there is a slight discrepancy in the region where the sodium hydroxide was injected and are marked on the graphs.

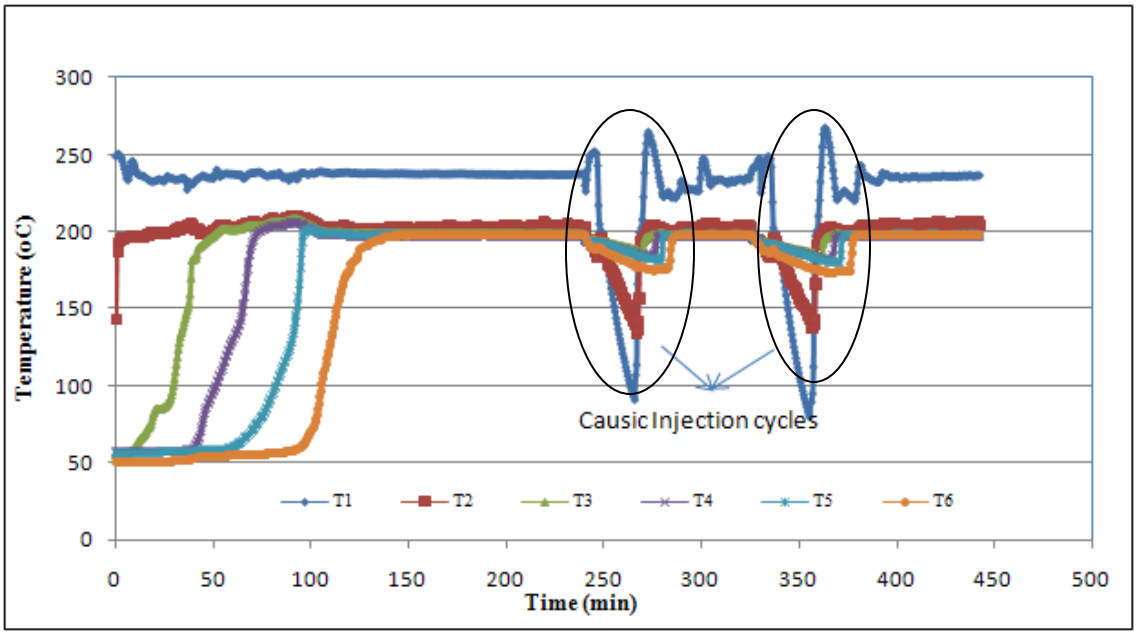

Figure 4.31 - Temperature profile for run 6

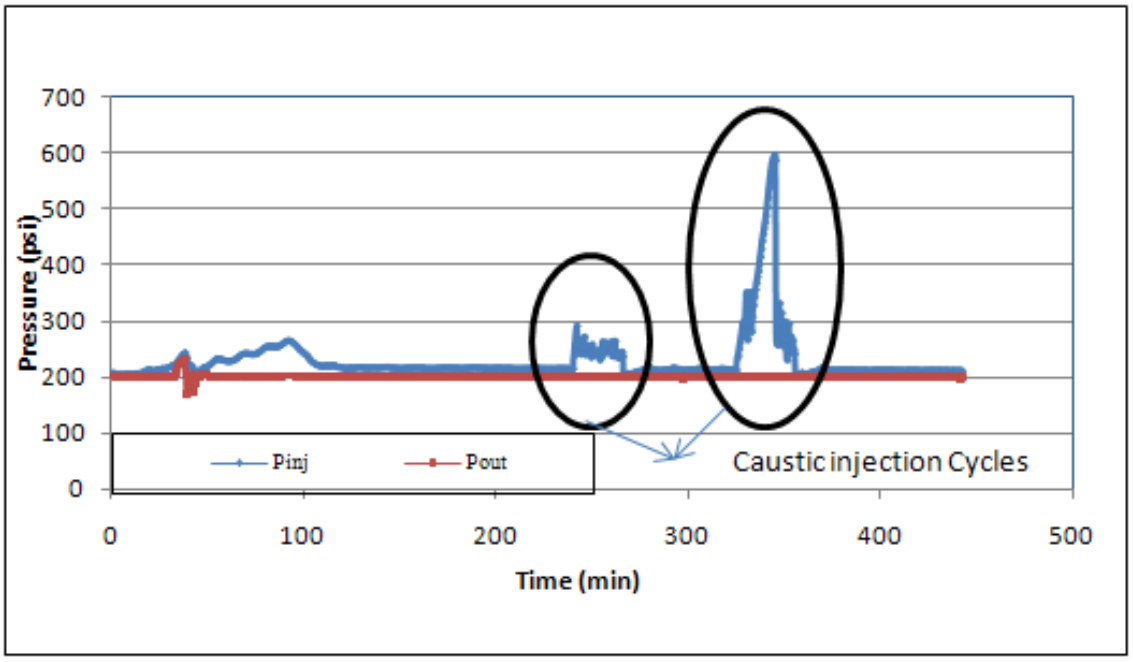

Figure 4.32 - Pressure profile for run 6

The liquid production profiles are plotted in **Fig. 4.33.** The maximum oil production rate is 6.7 cc/min and the maximum water production rate 13 cc/min.

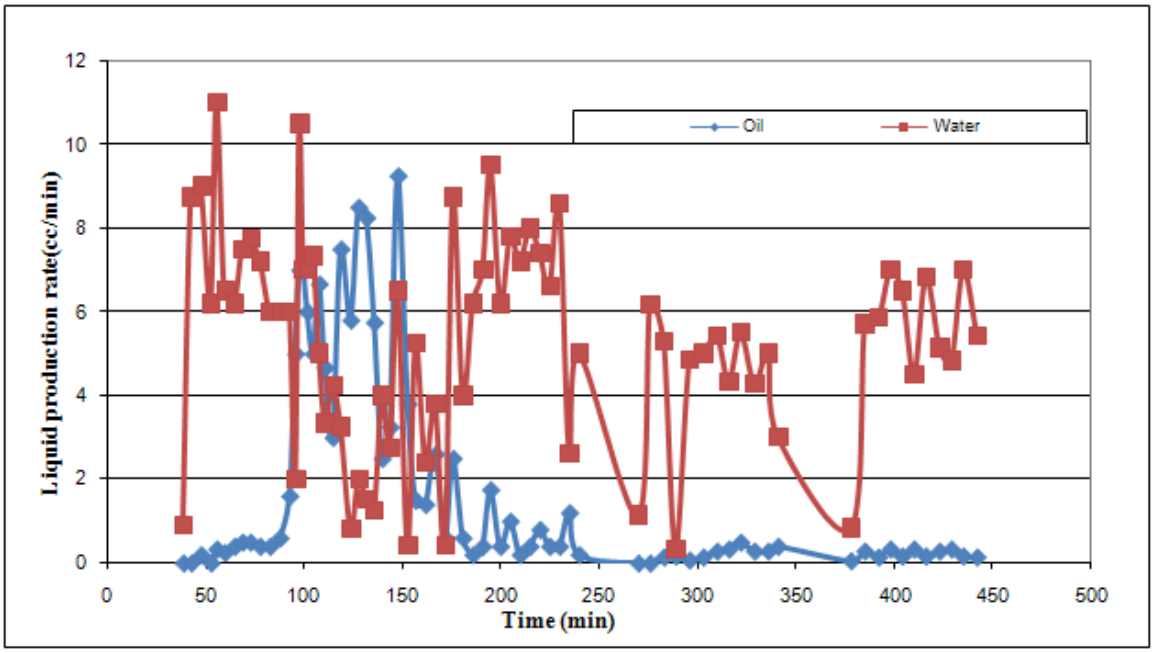

Figure 4.33-Liquid production rates for run 6

Now the total oil that is recovered is 80 % of the original oil in place and is shown in **Fig. 4.34** with respect to time**.** The percentage of oil recovered plotted against pore volume is shown in **Fig. 4.35.** The steam front velocity for the cyclic caustic injection is shown in **Fig. 4.36.**

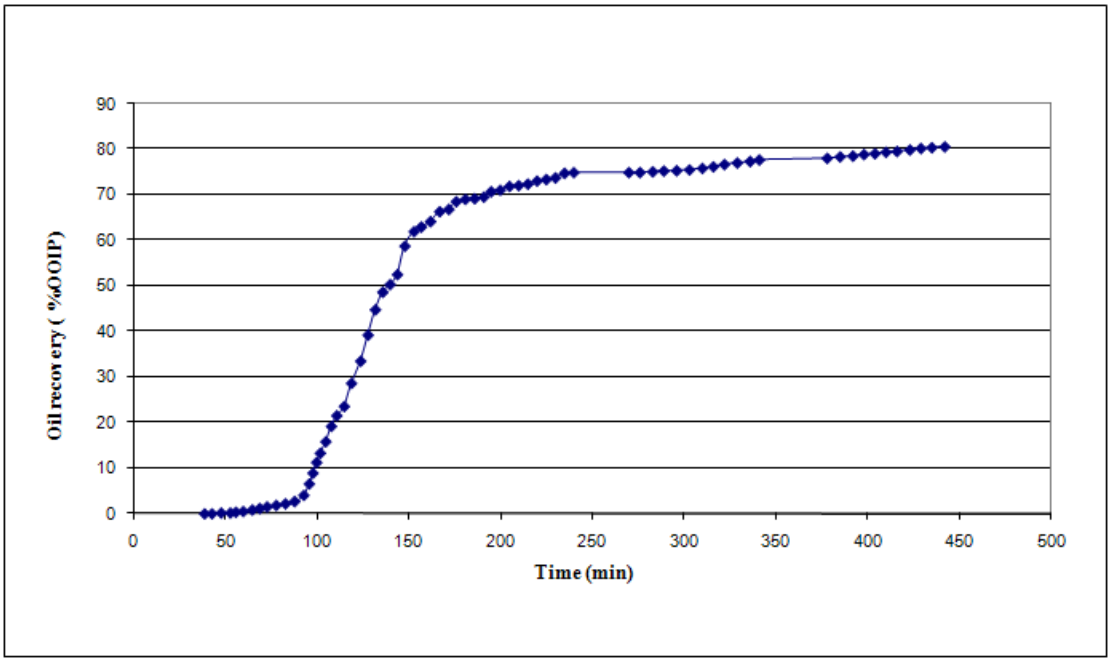

Figure 4.34-Oil recovery versus time for run 6

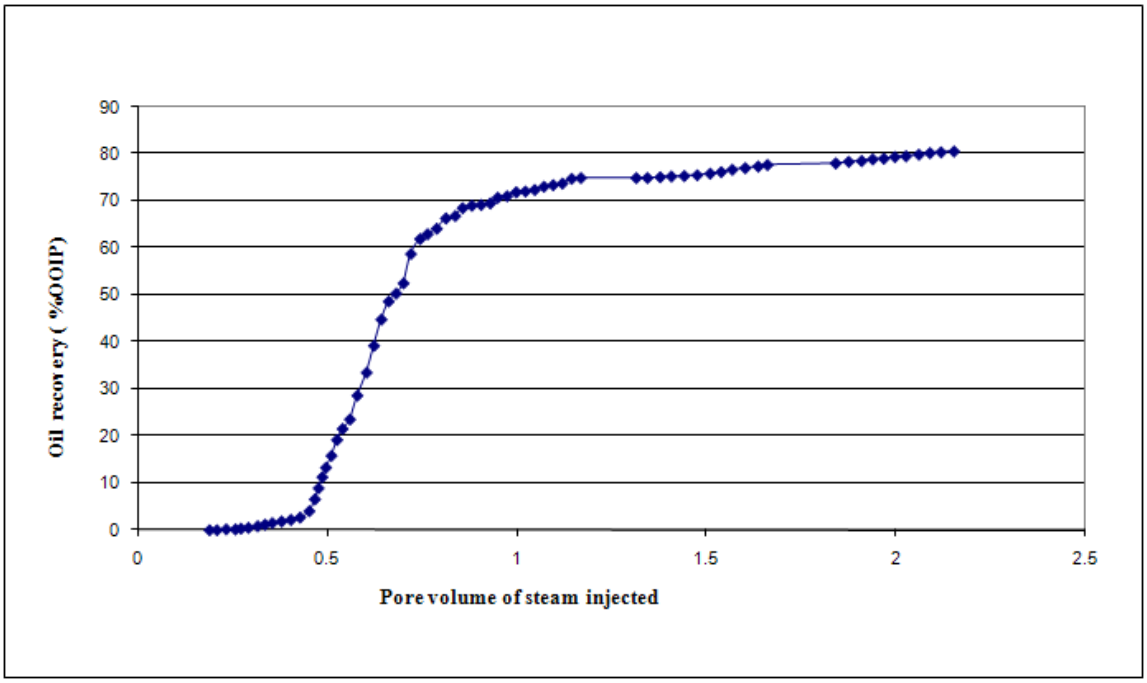

Figure 4.35-Oil recovery versus pore volume of steam injected for run 6

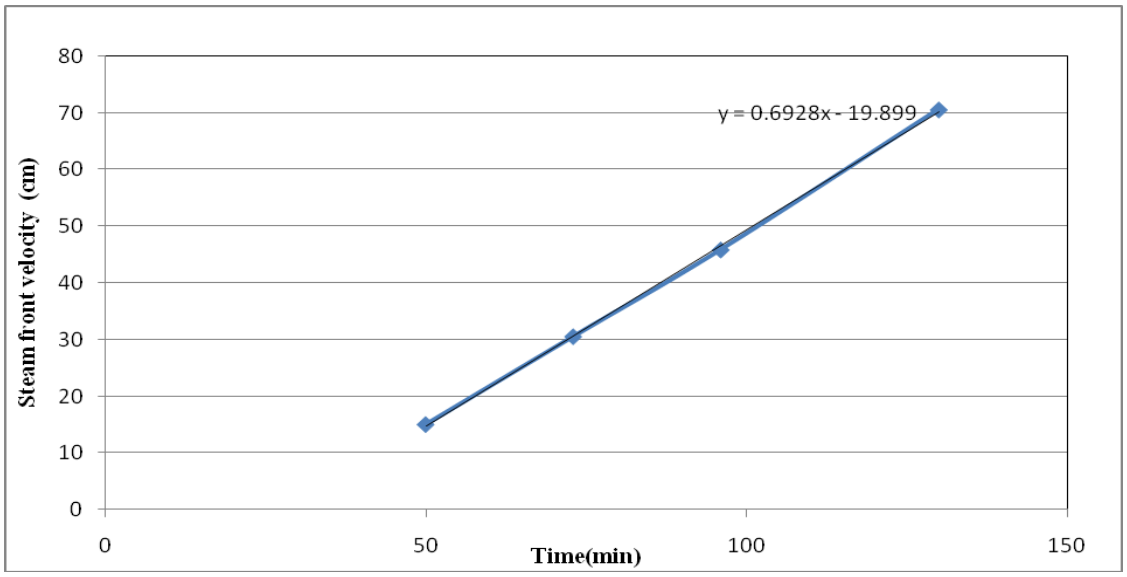

Figure 4.36 - Steam front velocity for Run 6

The viscosity and density for Run 6 are shown in **Table 4.7.**

Table 4.7- Viscosity and density readings for run 6

Run 6 (Steam+NaOH(1 wt %-as slug) –San Ardo)			
Density (°API)	Initial	Middle	Final
	14	15.2	16.5
Temperature (°C)	Viscosity (cp)		
40	4611	3700	1895
50	2543	1890	1500
60	1246	900	640

4.8 Run 7: Pure Steam Injection NaOH (1 wt %) for San Ardo Oil

In order to compare the recoveries for the 1 wt % sodium hydroxide injected as a slug a pure steam flood was also conducted for 7 hrs. **Fig. 4.37** shows the temperature profile

for run 7 with pure steam. Pressure Profile for the run is shown in **Fig. 4.38.** The liquid production rates are shown in **Fig. 4.39** and the maximum oil rate is 12 cc/min and the maximum water rate is.9.75 cc/min. The oil recovery is shown with respect to time in **Fig. 4.40** and with respect to pore volume in **Fig. 4.41.** The steam front velocity is shown in **Fig. 4.42.**

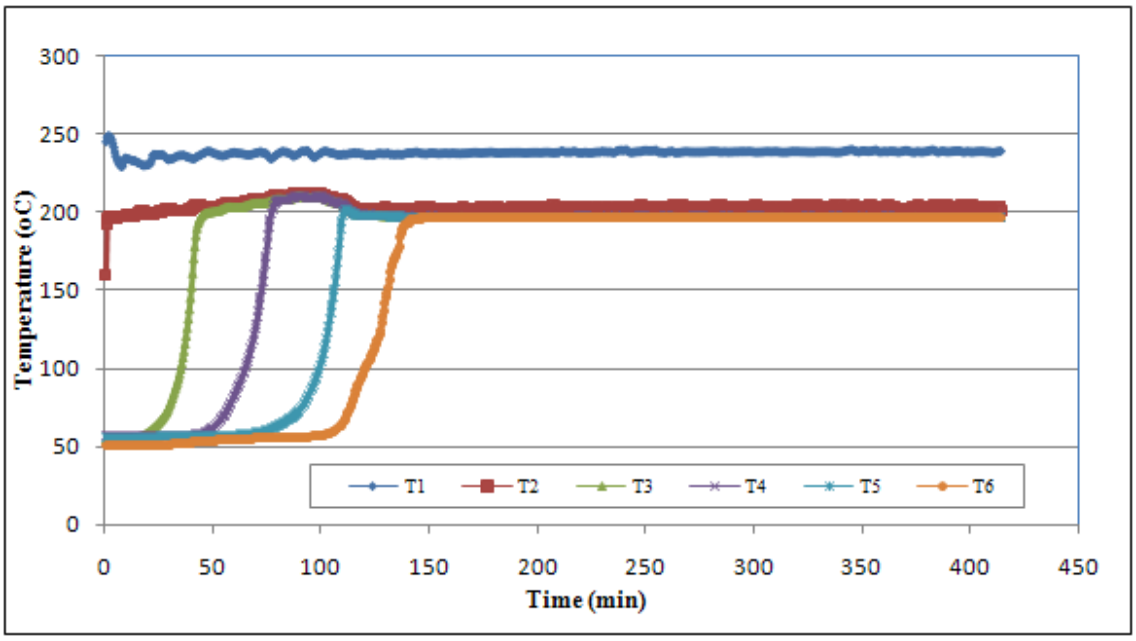

Figure 4.37 – Temperature profile for run 7

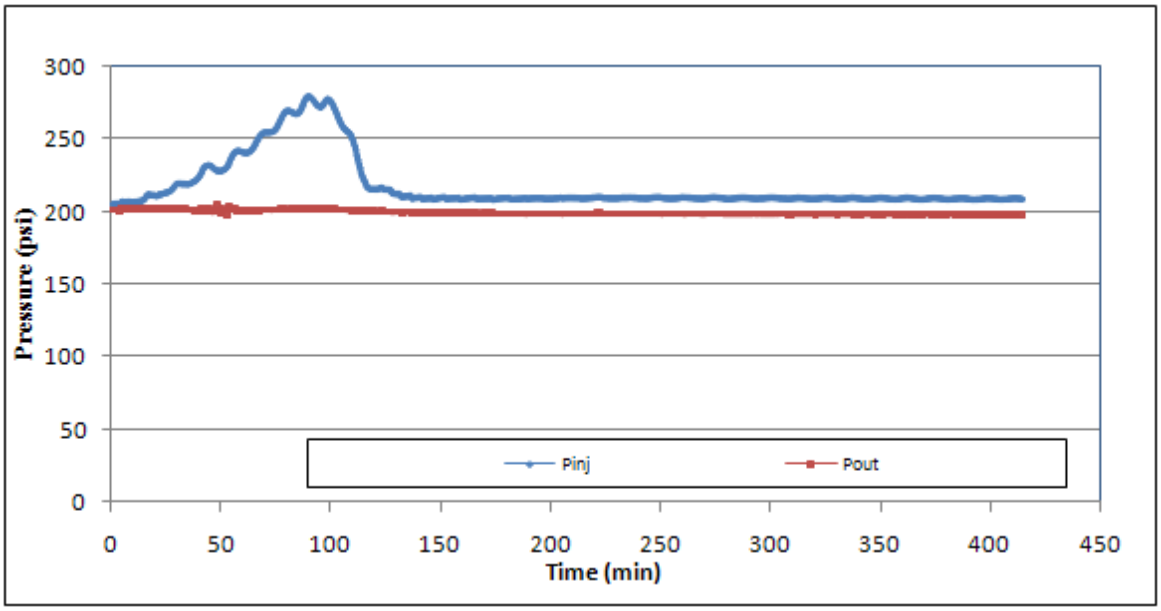

Figure 4.38 - Pressure profile for run 7

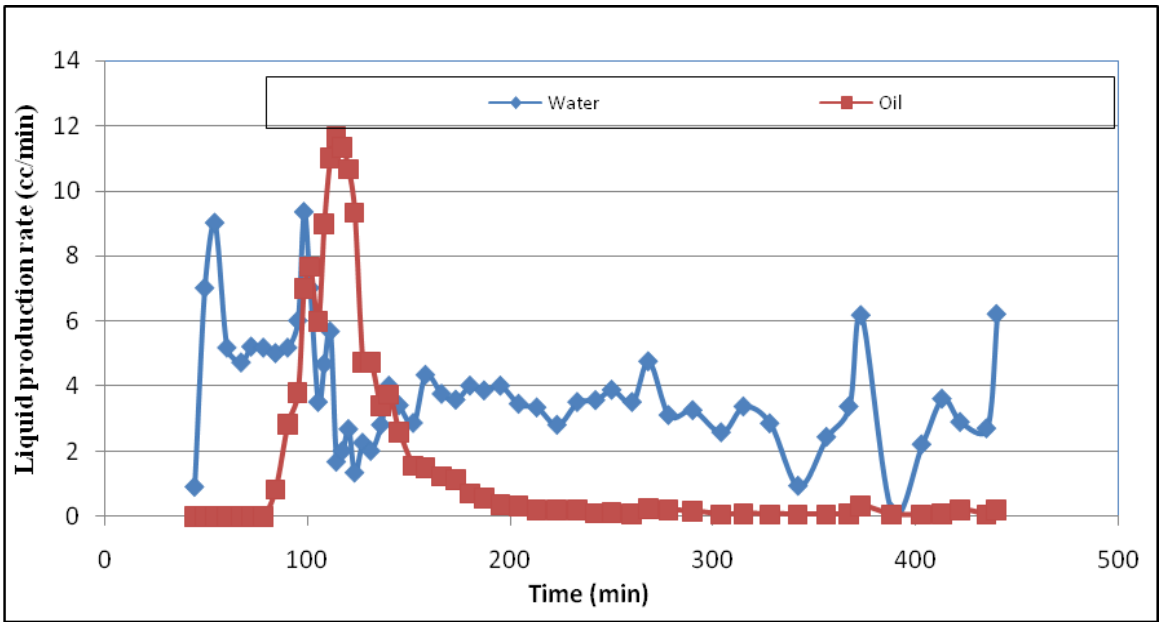

Figure 4.39 - Liquid production rates for run 7

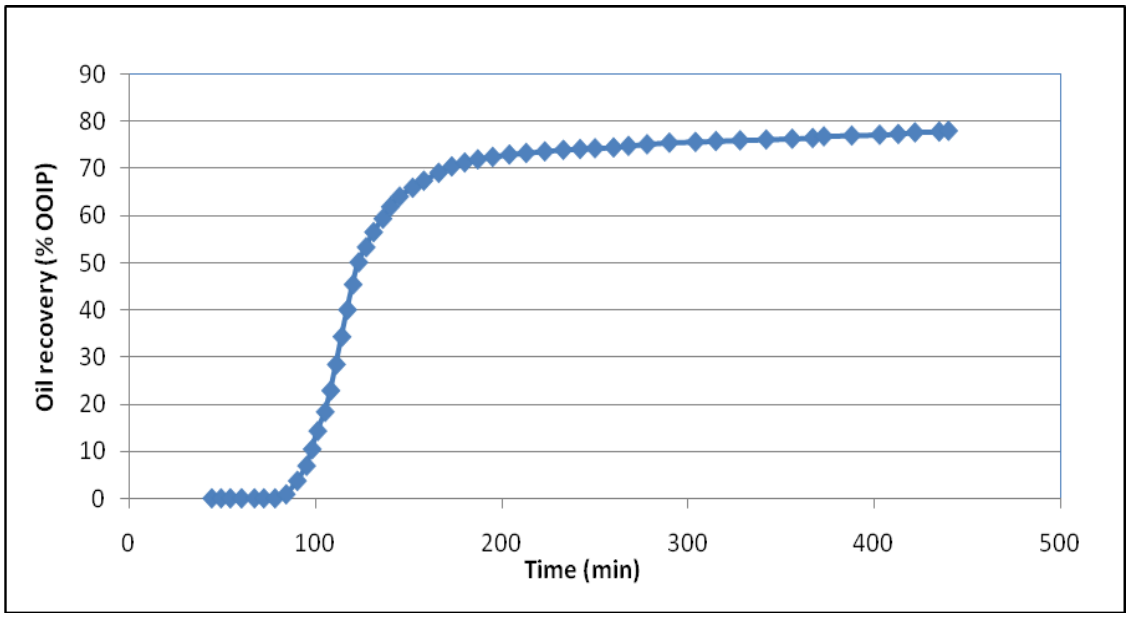

Figure 4.40 - Oil recovery versus time for run 7

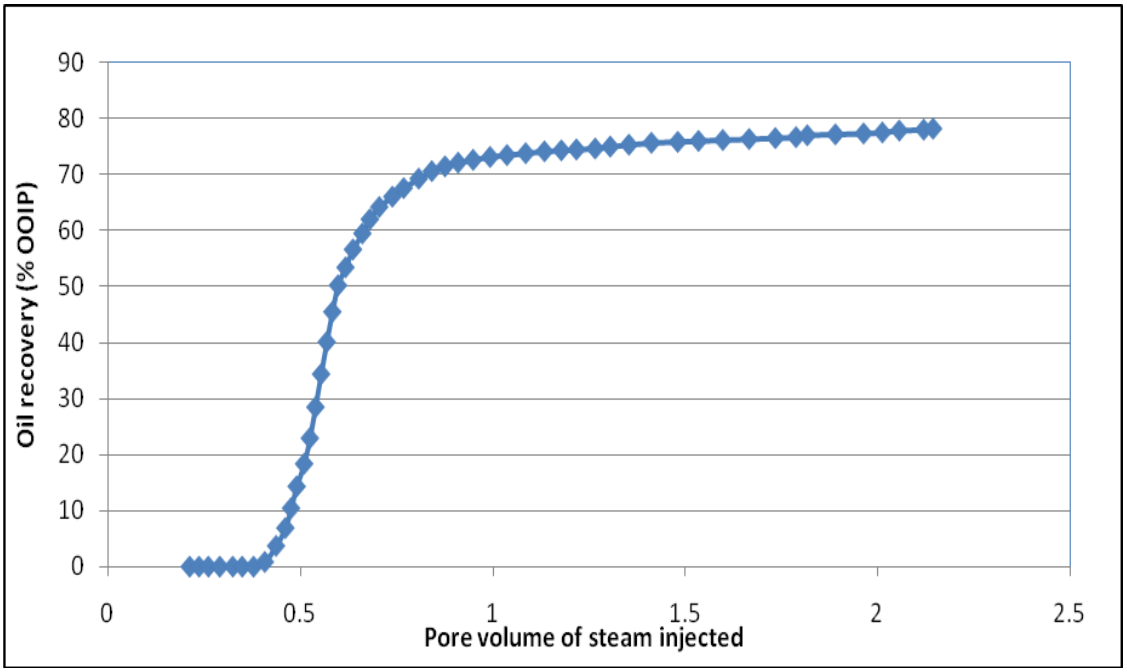

Figure 4.41-Oil recovery versus pore volume of steam injected for run 7

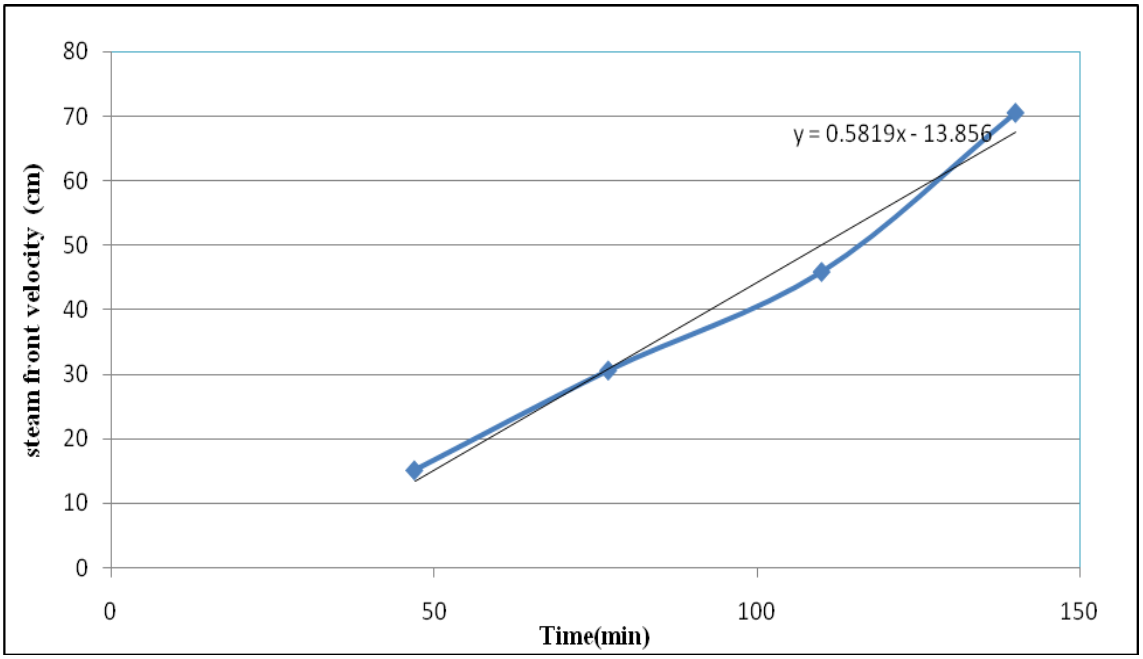

Figure 4.42 - Steam front velocity for run 7

The viscosity and density readings for Run 7 are shown in **Table 4.8.**

Table 4.8-Viscosity and density readings for run 7

Run 7 (Pure Steam –San Ardo)			
Density (°API)	Initial	Middle	Final
	14	14.8	16.2
Temperature (°C)	Viscosity (cp)		
40	5712	4200	2000
50	2968	2006	1756
60	1345	1242	740

4.9 Acid Number Measurements

For the acid number measurements first the solution of 0.05M TBAOH (tetra butyl ammonium hydroxide) is prepared. In the mixing flask 50 ml of a mixture of 49.4% IPA (Iso Propyl alcohol), 50 % Toluene and 0.06 % DDI (deionized distilled water) is taken and a drop of stearic acid is added to spike the mixture. Next the TBAOH is titrated with this blank mixture and the following graph is obtained. From the graph the inflection point (end point) of the titration is measured. **Fig. 4.43** shows the titration between the blank sample and the titrant.

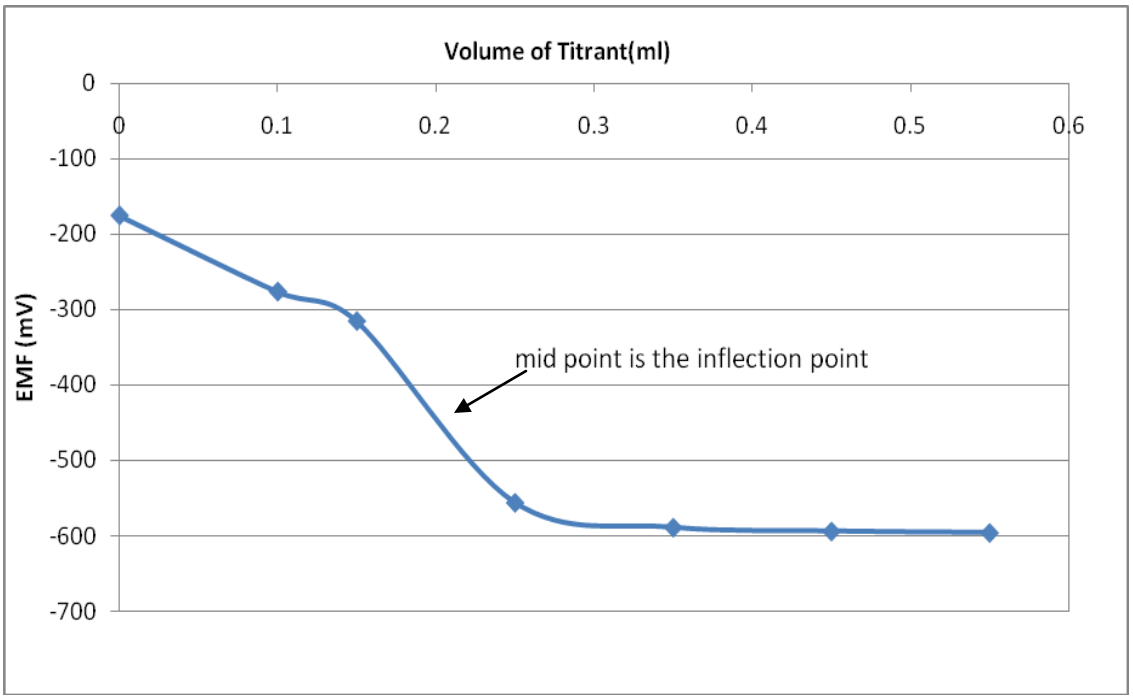

Figure 4.43 - Blank sample titration

Now for San Ardo oil the mixing flask is again filled with the solvent mixture and stearic acid is added to spike the solvent mixture. Next 1 cc of oil is added to the spiked

solvent mixture and is titrated against TBAOH and Fig. **4.44** shows the result of San Ardo oil. Now after the inflection point is obtained **Eqn. 4.1** is used to obtain the value for the acid number.

$$AN = (V_i - V_b) * M * V / (W) \quad \text{..... (4.1)}$$

where

AN is the acid number (mg KOH/g of oil)

V_i is the volume of titrant at the sample inflection Point (ml)

V_b is the volume of titrant at the blank inflection point (ml)

M is the molar concentration of the TBAOH Titrant (mol/L)

MW is the molecular weight of TBAOH (gm/mol)

W is weight of oil sample (g).

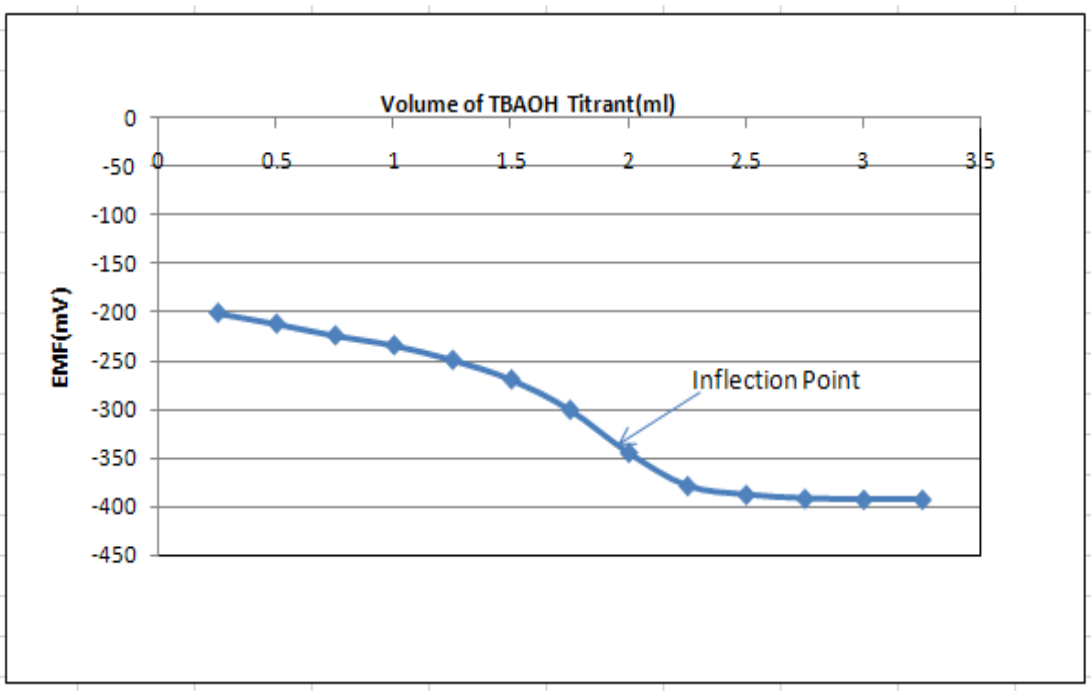

Figure 4.44 - San Ardo oil titration

For San Ardo oil the value of the acid number obtained is 6.2 mg KOH/g of oil. The same measurements are conducted for Duri oil and the acid number value obtained for Duri is 3.6 mg KOH/g of oil. **Fig. 4.45** shows the titration results for Duri oil.

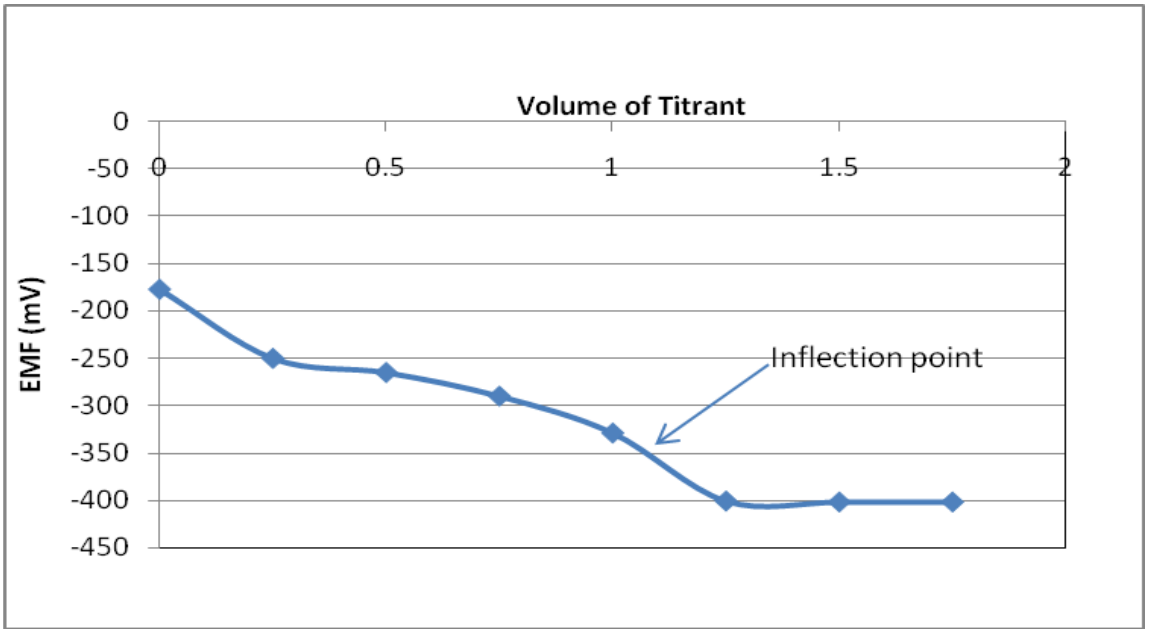

Figure 4.45 - Duri oil titration

4.10 Interfacial Tension Measurements

The interfacial tension measurements with different concentrations of NaOH and San Ardo and Duri oil are shown in **Table 4.9** and **Table 4.10.**From the tables it is observed that for both the oils the lowest interfacial tension is obtained at 1 wt % NaOH and the interfacial tension values are lower in case of Duri oil when compared to San Ardo, which can be the reason for Duri oil showing better results with NaOH than San Ardo.

Table 4.9-Interfacial tension measurements for Duri oil

Duri Oil	
NaOH (wt %)	IFT(mN/m)
0.05	10.8
0.1	11
0.5	10.2
1	**9**
5	9.5
10	9.8

Table 4.10-Interfacial tension measurements for San Ardo oil

San Ardo	
NaOH (wt %)	IFT(mN/m)
0.05	26
0.1	26.7
0.5	27
1	**25.1**
5	26.5
10	27.1

4.11 Comparison and Discussion of Results

For the alkaline steamflooding to be effective the acid numbers of the oils should be high and in this case both Duri and San Ardo have a high acid number. The acid number gives an indication of the amount of acids present in the oil which enables it to form a surfactant when it reacts with sodium hydroxide. Although the acid number gives the amount of acids present in the oil, the type of acids present is not known. For the success of alkaline steamflooding the acids present should be long chain carbon molecules which facilitate the formation of soap and thereby reducing the interfacial tension of the oil. For all the experiments the comparison and discussion can be done for the two oils separately.

4.11.1 Comparison of Runs (Duri oil)

For all the Duri oil experiments (Run 3, Run 4, Run 5) water production rates were plotted with respect to pore volume and shown in **Fig. 4.46.**

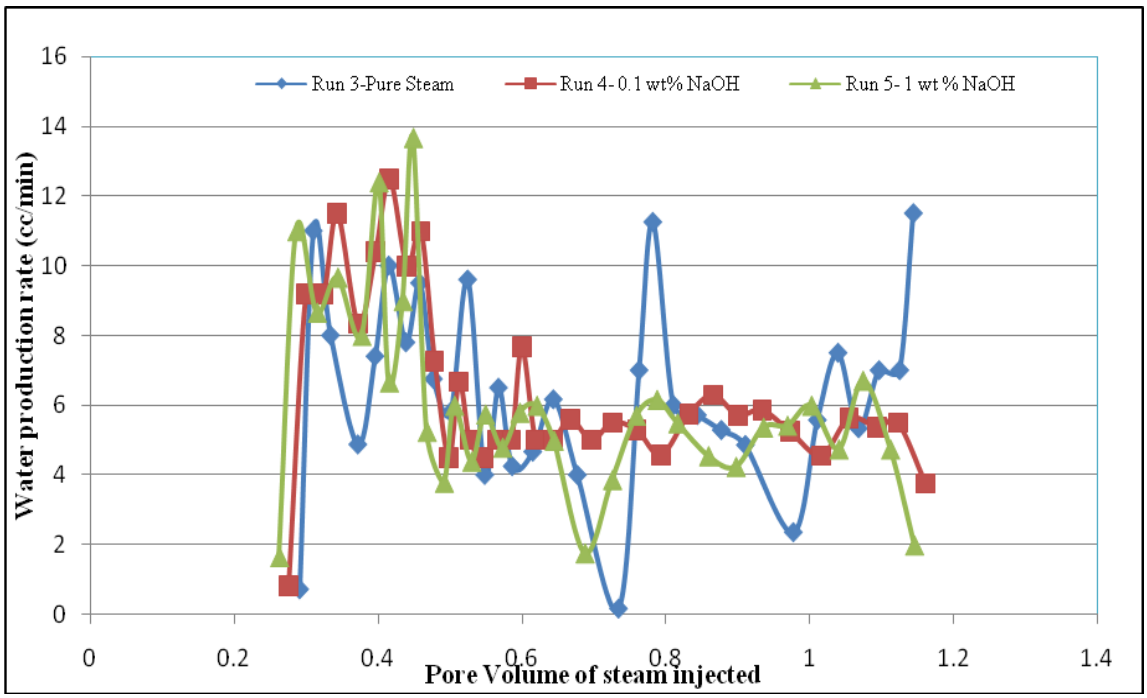

Figure 4.46 - Water production rate versus pore volume of steam injected

In **Fig. 4.46**, the water production starts faster in both the sodium hydroxide runs and it is fastest in case of Run 5 (0.26 PV) and it production starts late in pure steam run(Run 3-0.29 PV).This shows that there is an acceleration with the addition of sodium hydroxide and the acceleration is higher with 1 wt % NaOH.

A plot of cumulative water production for the three different runs is shown in **Fig. 4.47.** It is seen that the water production in both the runs with sodium hydroxide is higher than the pure steam run.

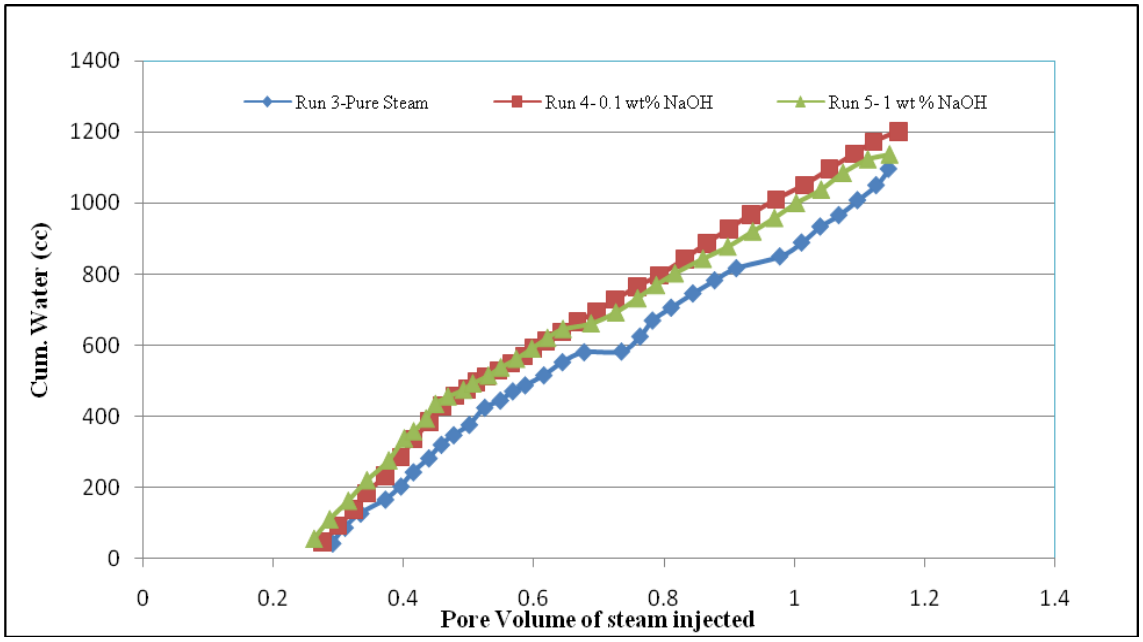

Figure 4.47 - Cumulative water volume versus pore volume of steam injected

A plot of oil rate and pore volume is shown in **Fig. 4.48** and it can be seen that production of oil is slower in the sodium hydroxide runs when compared to the pure steam run . The sodium hydroxide run with 1 wt % NaOH produces faster that the 0.1 wt % NaOH (0.4 PV compared to 0.45 PV). Although the production of oil was faster in case of steam we see that the 1 wt % NaOH shows 12 % acceleration in the production of oil when compared to the 0.1 wt % NaOH.

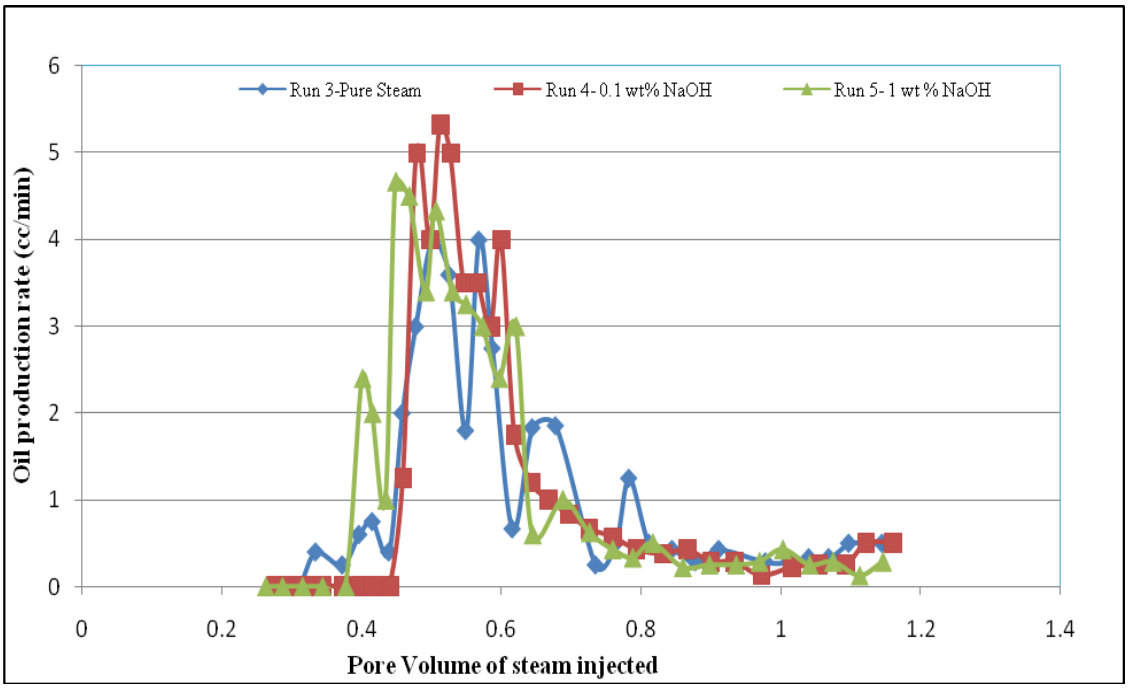

Figure 4.48 – Oil rate versus pore volume of steam injected

The volume of oil is plotted against the pore volume for the three runs, **Fig. 4.48** and we see that the recovery is maximum in case of Run 5 and it produces an increase of 7 % in recovery. The increase in recovery is due to the formation of surfactants that reduce the interfacial tension of oil. Run 3 and Run 4 had recovery of 52 % and 53 % respectively and the recovery with 1 wt % NaOH is 59 %.This shows that sodium hydroxide has an effect on Duri and contributes to the higher recovery of the oil.

The change viscosity is also shown in **Fig. 4.49**.There is a decrease in viscosity and density which also attributes to the higher recovery of oil.

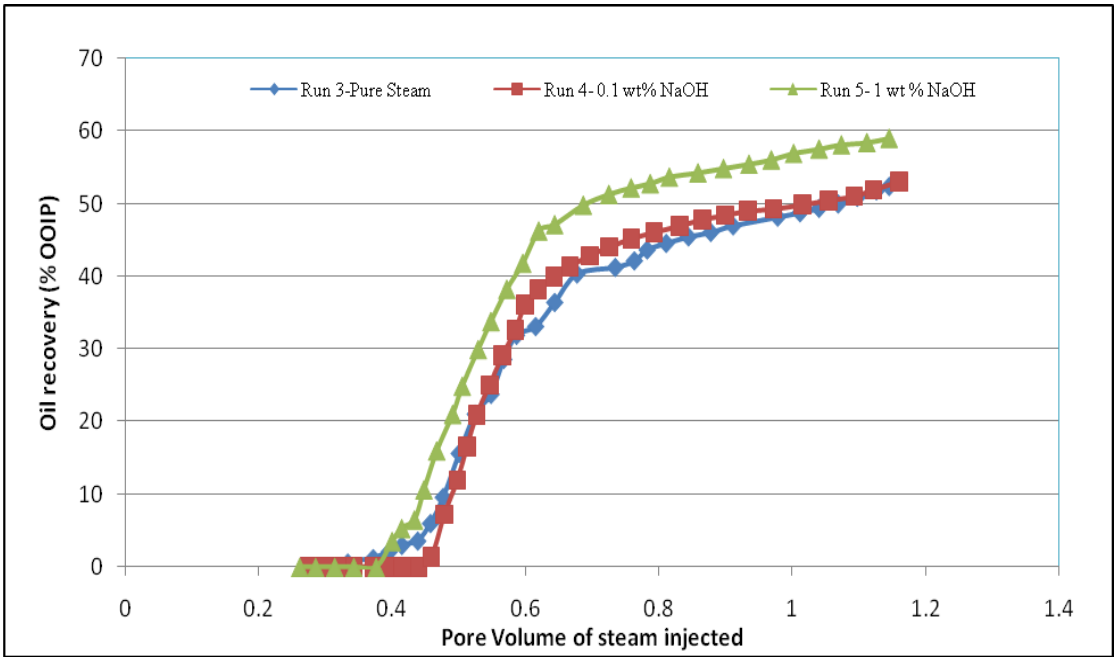

Figure 4.49 - Oil recovery versus pore volume of steam injected

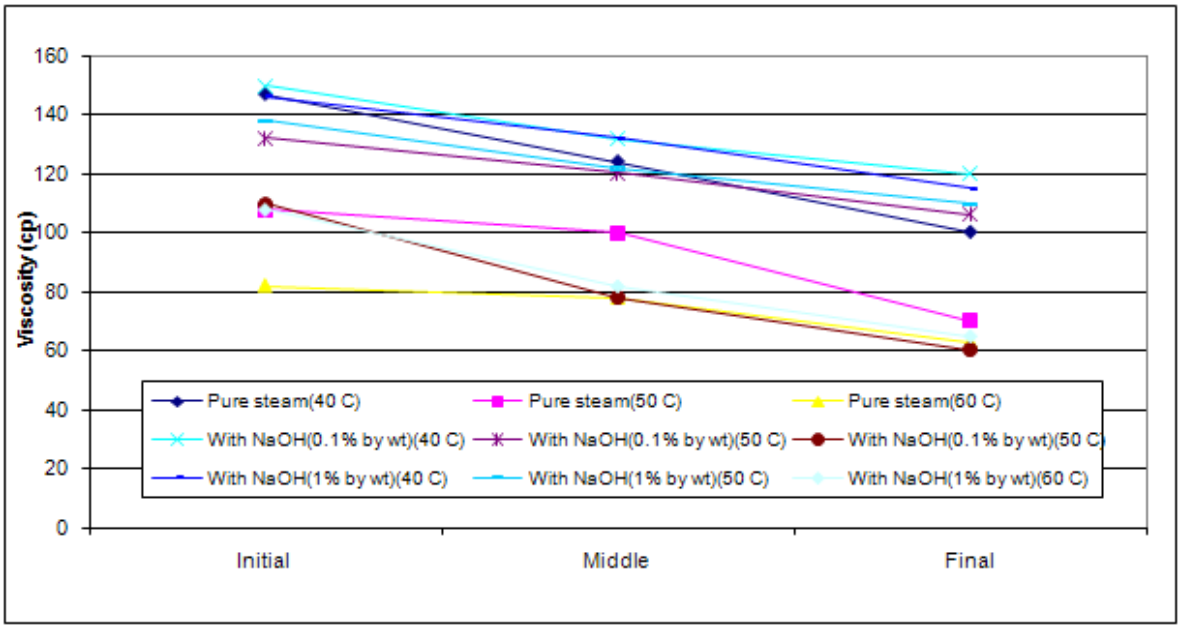

Figure 4.50-Oil viscosity change

4.11.2 Comparison of Runs (San Ardo)

For the comparison of runs involving San Ardo 4 runs 1, 2, 6, 7 are used. Run 2 involve the simultaneous injection of sodium hydroxide with steam whereas in Run 6 the caustic is injected as slug in two cycles.

For all the runs the water production rate was plotted with pore volume shown in **Fig. 4.51** and the cumulative water production is shown in **Fig. 4.52.**The maximum water produced is in the cyclic caustic injection run and maximum water production rate is seen in Run 2 (0.1 wt % NaOH).

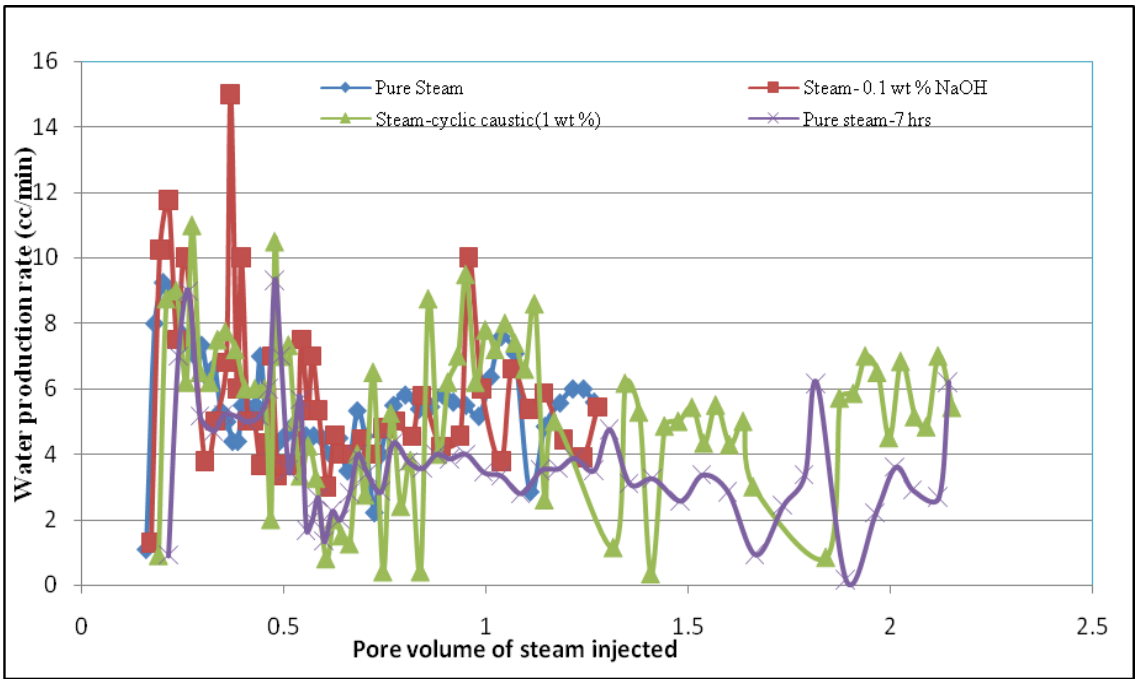

Figure 4.51-Water production rate versus pore volume of steam injected

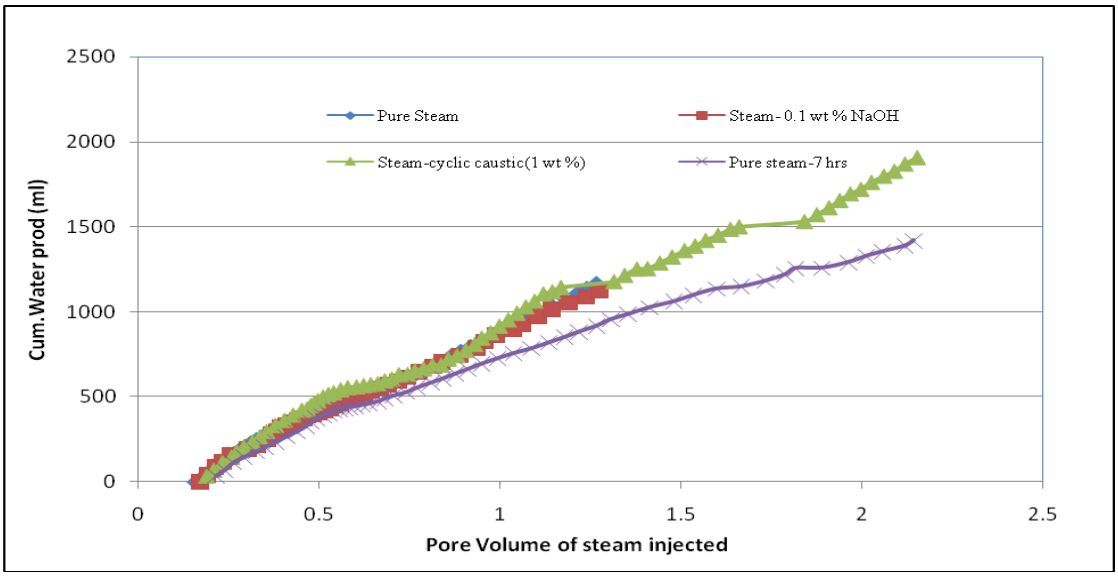

Figure 4.52- Cumulative water production rate versus pore volume of steam injected

The oil rates for all the runs are plotted against pore volume in **Fig. 4.53.** The oil recovery is plotted against pore volume for all the runs in **Fig. 4.54.**

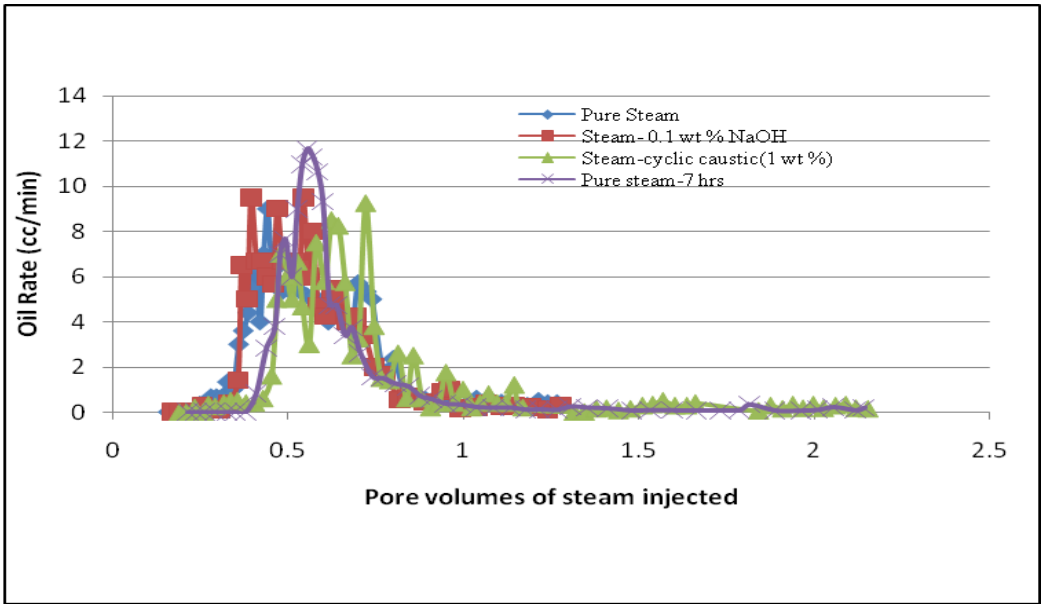

Figure 4.53- Oil rate versus pore volume of steam injected

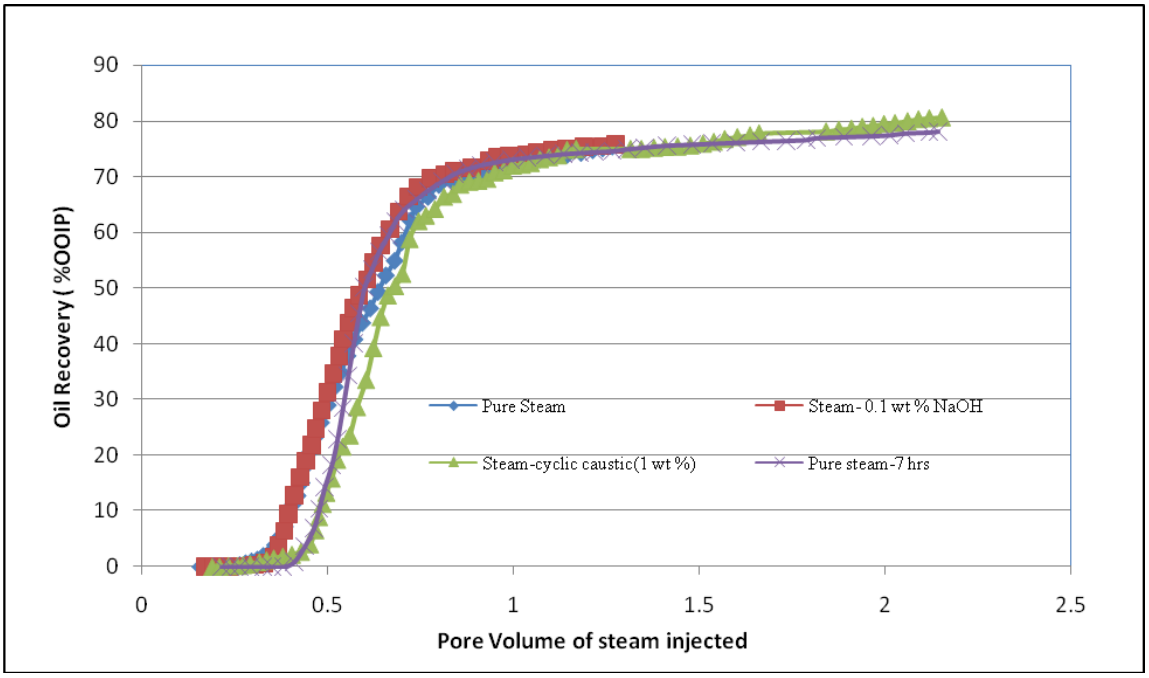

Figure 4.54- Oil rrcovery versus pore volume of steam injected

From the plot it can be seen that there is no difference in oil recovery for Run 1(pure steam) and Run 2 (steam-0.1 wt % NaOH) and even with the cyclic injection of caustic, there is no effect in recovery. The recovery for run 6 and run 7 are 81% and 78 % respectively..We see that run 6 and run 7 have a higher recovery when compared to Run 1(75.3 %) and Run 2(75.7 %).This is due to the fact that more pore volumes of steam was injected (2.2 PV) when compared to Run 1 and Run 2(1.15 PV).The viscosity and the density are shown in **Fig. 4.55** and **Fig. 4.56.**

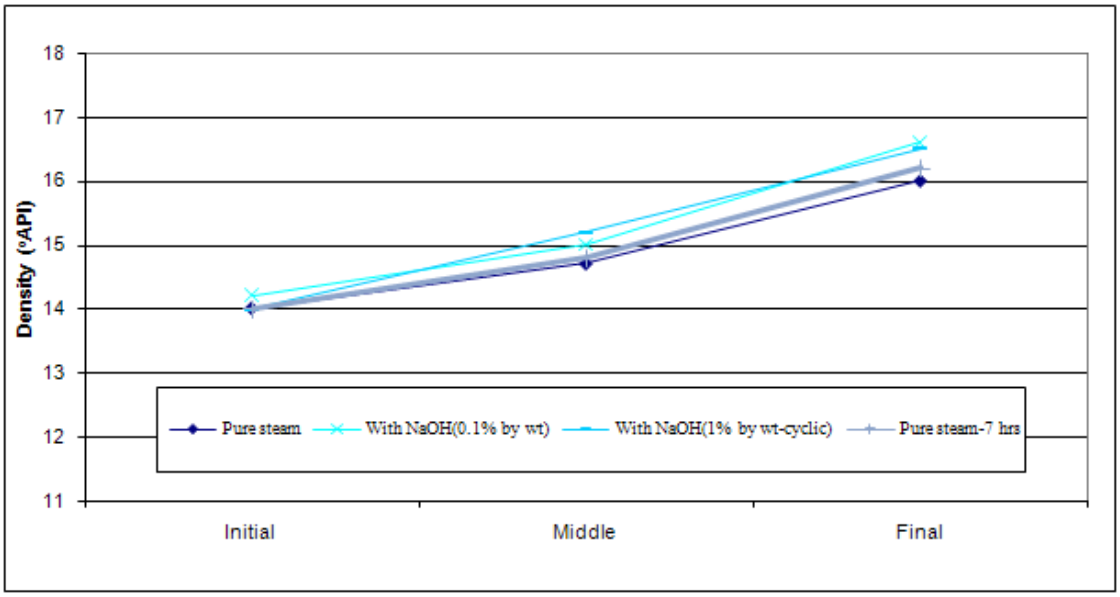

Figure 4.55 – Density change for San Ardo oil

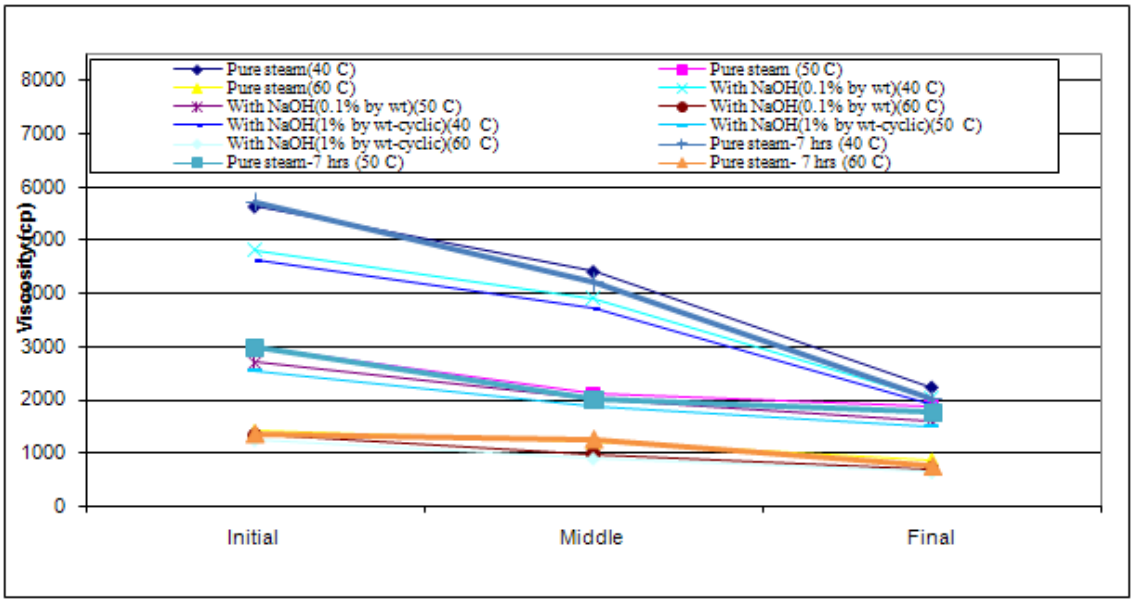

Figure 4.56 – Viscosity change for San Ardo oil

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The purpose of the research was to improve the recovery factor of heavy oils by using suitable additives. The additive used was sodium hydroxide which increases improves the secondary oil recovery by reducing the IFT by reacting with the organic acids present in the oil. The experiments were conducted in a one dimensional cell by using a sandpack and testing two heavy oils San Ardo and Duri. The acid number of the oils was also measured by using a titration method and a pH meter to determine the amount of acids present in the oil. The IFT between the oils and different concentrations of NaOH solution was also measured using a tensionometer.

5.2 Conclusions

Main conclusions of the study may be summarized as follows:

(a) San Ardo Oil- With steam-NaOH (0.1 wt %), oil recovery is 75.7% OIIP compared to75% OIIP under steam injection. Oil recovery is practically the same in both cases. For caustic slug injection the recovery was 80 %. For pure steam for the exact same pore volumes of steam injected as in the caustic slug run the recovery was 78 %. Caustic solution was injected as a slug for San Ardo oil after the sand pack was steamflooded to recover the residual oil, to test it as an injection mechanism because of the failure of simultaneous caustic steam injection but it was not very effective.

(b) Duri oil- With steam-NaOH (0.1 wt %), oil recovery is 53% OIIP compared to 52% OIIP under steam injection. Oil recovery is practically the same in both cases. With increase in the concentration of NaOH (from 0.1 to 1 wt %) oil recovery increased to 59% OIIP from 52% OIIP under steam injection. Sodium hydroxide resulted in higher oil recovery with Duri Oil. Although it did not accelerate the process by much there was significant increase in the recovery of oil.

(c) It appears that NaOH as a steam additive is more effective in the case of Duri oil. This may be due to the formation of more surfactant with Duri oil than San Ardo oil.

(d) The acid number was measured and was found to be 6.25 mg KOH/g of oil for San Ardo and 4.2 mg KOH/g of oil for Duri, indicating San Ardo to be more acidic than Duri oil.

(d) From the IFT measurements, it is seen that IFT is lower for Duri oil than for San Ardo and the lowest IFT is obtained with 1 wt % NaOH .The lower value of IFT is an indication that more amount of surfactant is formed in case of Duri oil. The lower values of IFT indicate that the amount of surfactant is sufficient to reduce the residual oil value in the case of Duri oil.

(e) For San Ardo oil there is acceleration in production by 12 % with NaOH-steam injection compared to pure steam injection.

(f) The water volume produced is higher for both oils in cases where sodium hydroxide solution is injected either as a slug or simultaneously with steam.

(g) Higher oil production rates were seen in steam-caustic injection runs when compared to pure steam injection runs.

The effect of the alkali on San Ardo oil is not seen since the sodium hydroxide is probably not injected in sufficient quantities to bring about a change in interfacial tension and therefore higher recovery. The oil saturation for San Ardo oil used in the experiments is 60% whereas the oil saturation used for Duri oil is 30 %.The success of sodium hydroxide with very heavy oils requires probably large quantities of alkali to be injected over a long period of time.

5.3 Recommendations

Following are the main recommendations for future research:

(1) To study further the effect of sodium hydroxide on different kinds of oils and to understand the effect of the acids present in the oil in reducing interfacial tension.

(2) To conduct the experiments on previously waterflooded sandpacks for very heavy oils like San Ardo.

(3) Core flooding would also be helpful in understanding the process of alkaline steam flooding with both heavy and lighter oils.

(4) To test the combination of sodium hydroxide with additives which form the basis for alkaline surfactant process – as in Alkaline Surfactant Polymer (ASP) injection - in improving the recovery of oil.

(5) To test non thermal means of caustic flooding for heavy oils.

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APPENDIX A

CALCULATION OF FLUID SATURATIONS

The following is a sample calculation of the fluid saturations and pore volume inside the cell. The calculations are made for Run 1.

1. Cell dimension:

   Diameter, d = 7.35, height, h = 66.5

   Since the cell is cylindrical, the volume of the cell is:

   $$V_{cell} = h\pi\left(\frac{d}{2}\right)^2 = 2821.54\,\text{cm}^3$$

2. The total weight of mixture (W_{mix}):

   Weight of sand, W_{sand} = 5141g

   Weight of water, W_{water} = 226g

   Weight of oil, W_{oil} = 671g

   $W_{mix} = W_{sand} + W_{water} + W_{oil}$

   W_{mix} = 5141 + 226 + 667 = 6038g

3. The weight of mixture inside the cell, W_{mix} in cell is:

   Weight of empty cell = 2823.6 g

   Weight of cell with mixture inside = 8359g

   Weight of mixture inside the cell, $W_{mixcell}$ = 8359 – 2823.6 = 5535.4g

4. Since the mixture is homogenous, the proportions of sand, water and oil remain constant before and after packing. The amount of each component inside the cell is then calculated below:

   Weight of sand inside the cell, $W_{sandcell} = \frac{W_{mixcell}}{W_{mix}} W_{sand} = \frac{5535.4}{6032.8} 5141 = 4717.13g$

Weight of water inside the cell, $W_{watercell} = \frac{W_{mixcell}}{W_{mix}} W_{water} = \frac{5535.3}{6032.8} 226 = 207.37g$

Weight of oil inside the cell, $W_{oilcell} = \frac{W_{mixcell}}{W_{mix}} W_{oil} = \frac{5535.3}{6032.8} 443 = 615.68g$

5. The sand density, ρ=2.65g/ cm^3. Thus,

   Volume of sand inside the cell, $V_{sandcell} = \frac{W_{sandcell}}{\rho_{sand}} = \frac{4717.13}{2.65} = 1780.05cm^3$

6. The Porosity inside the cell is:

$$\phi = \frac{V_{cell} - V_{sandcell}}{V_{cell}} = \frac{2821.54 - 1780.05}{2821.54} = 0.392$$

7. The original San Ardo oil has an oil gravity of 12.5 which is equivalent 0.988 g/cm^3. Water and oil volumes inside the cell are calculated as follows:

$$V_{watercell} = \frac{W_{watercell}}{\rho_{water}} = \frac{207.37}{1} = 207.37cm^3$$

$$V_{oilcell} = \frac{W_{oilcell}}{\rho_{water}} = \frac{615.68}{0.988} = 623.15cm^3$$

8. The pore volume inside the cell is:

$$V_{porecell} = \phi \times Vcell = 1041.49cm^3$$

9. The saturations are calculated as follows:

$$S_w = \frac{V_{watercell}}{V_{porecell}} = \frac{207.17}{1041.49} = 0.199$$

$$S_o = \frac{V_{oilcell}}{V_{porecell}} = \frac{623.15}{1041.49} = 0.598$$

$S_g = 1 - S_o - S_w = 0.203$ Where S_g represents the nitrogen saturation.

APPENDIX B

TEMPERATURE AND PRESSURE DATA

The data in the following sets of data are:

T1: TEMPERATURE AT 17.7 CM ABOVE THE SAND MIX FACE.

T2: TEMPERATURE AT 3.1 CM ABOVE THE SAND MIX FACE.

T3: TEMPERATURE AT 12.0 CM INTO THE SAND MIX.

T4: TEMPERATURE AT 27.5 CM INTO THE SAND MIX.

T5: TEMPERATURE AT 42.8 CM INTO THE SAND MIX.

T6: TEMPERATURE AT 68 CM INTO THE SAND MIX.

$P_{INJ:}$ STEAM INJECTION PRESSURE.

$P_{OUT:}$ PRODUCTION PRESSURE.

$V_{W:}$ WATER INJECTION RATE.

DATA FOR RUNS ONE TO SEVEN ARE PRESENTED IN TABLES B1 TO B7. BELOW IS THE LIST OF RUNS AND A BRIEF DESCRIPTION OF EACH:

a) Run 1:Base run for San Ardo Oil using Pure Steam

b) Run 2:Pure steam with NaOH (0.1 wt %) for San Ardo oil

c) Run 3:Base run for Duri oil using Pure steam

d) Run 4:Pure steam with NaOH(0.1 wt %) for Duri oil

e) Run 5:Pure steam with NaOH(1 wt %) for Duri oil

f) Run 6: Cyclic Injection of NaOH (1 wt %) and steam for San Ardo oil.

g) Run 7: Pure steam Injection NaOH (1 wt %) for San Ardo oil.

Table B1-Temperature and Production Data for Run 1

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
0.5455	245.71	150.72	61.32	63.36	62.02	55.8	204.33	199.73	5.59
1.045333	247.95	181.66	61.34	63.37	62.04	55.86	203.55	199.04	5.62
1.544167	249.64	186.17	61.37	63.37	62.05	55.83	204.88	200.39	5.58
2.044	250.67	187.11	61.39	63.38	62.07	55.81	205.04	200.48	5.54
2.544833	251.23	187.68	61.37	63.38	62.07	55.83	204.74	200.24	5.54
3.044667	251.32	188.35	61.38	63.38	62.06	55.86	204.67	200.12	5.55
3.5445	250.72	188.39	61.42	63.41	62.08	55.86	204.58	200.05	5.58
4.045167	249.36	189.38	61.42	63.43	62.12	55.88	204.72	200.09	5.59
4.545	247.62	189.65	61.44	63.43	62.15	55.89	205.82	200.73	5.59
5.044833	245.49	189.94	61.47	63.48	62.15	55.91	205.88	200.56	5.59
5.5455	243.24	190.81	61.47	63.48	62.31	55.95	206.12	200.47	5.60
6.045333	241.25	191.22	61.46	63.5	62.23	55.98	206.49	200.49	5.61
6.545166	239.8	191.59	61.39	63.49	62.22	55.96	206.76	200.51	5.60
7.045	238.91	191.89	61.35	63.47	62.2	55.95	206.88	200.54	5.54
7.544833	238.32	192.31	61.34	63.49	62.23	55.97	206.88	200.52	5.54
8.045667	237.99	192.26	61.36	63.48	62.19	55.95	207.31	200.53	5.53
8.545333	237.74	192.6	61.36	63.5	62.23	55.96	207.45	200.59	5.56
9.045167	237.58	192.88	61.39	63.49	62.24	55.98	207.71	200.43	5.59
9.544168	237.3	193.04	61.43	63.49	62.24	56	207.26	199.55	5.57
10.04483	237.16	193.24	61.45	63.49	62.25	56.01	208.01	201.93	5.57
10.54567	237.12	193.42	61.49	63.5	62.25	55.99	209.25	201.93	5.57
11.0445	236.95	193.98	61.53	63.52	62.27	56.01	210.4	202.03	5.58
11.54433	236.47	194.56	61.61	63.51	62.37	56.02	211.21	201.86	5.60
12.045	235.56	194.96	61.65	63.51	62.3	56.04	210.43	201.57	5.62
12.54483	234.67	195.03	61.73	63.51	62.28	56.05	211.04	201.35	5.56
13.04567	233.81	195.56	61.83	63.54	62.32	56.09	212.04	201.57	5.52
13.5455	232.88	196.1	61.93	63.52	62.35	56.09	213.12	201.27	5.53
14.04533	232.01	196.73	62.05	63.52	62.35	56.1	213.55	199.44	5.55
14.54517	231.49	197.39	62.2	63.55	62.39	56.1	215.08	199.68	5.59
15.04583	230.85	197.83	62.4	63.51	62.4	56.12	214.92	199.37	5.59
15.54567	230.25	198.06	62.61	63.54	62.42	56.13	215.12	200.71	5.57
16.0455	230	198.1	62.88	63.5	62.4	56.13	215.09	200.31	5.58
16.54617	230.02	198.05	63.13	63.51	62.39	56.11	214.72	200.23	5.58
17.04417	230.17	198.13	63.49	63.49	62.39	56.1	214.79	200.22	5.60
17.544	230.37	198.22	63.85	63.49	62.45	56.1	214.99	200.2	5.62
18.04567	230.5	198.24	64.25	63.5	62.4	56.1	214.86	200.2	5.56
18.54467	230.46	198.26	64.69	63.48	62.54	56.11	214.48	200.2	5.53
19.04433	230.52	198.18	65.13	63.48	62.48	56.13	214.55	200.15	5.54
19.54517	230.97	198.43	65.61	63.45	62.52	56.12	215.23	200.2	5.59
20.045	232.25	198.63	66.12	63.47	62.58	56.12	215.75	200.25	5.60
20.54483	233.22	199.12	66.65	63.46	62.61	56.12	215.99	200.18	5.59
21.0455	233.83	199.18	67.18	63.42	62.72	56.13	216.16	200.12	5.60
21.54533	234.23	199.23	67.73	63.43	62.69	56.15	217.04	200.16	5.60
22.04517	233.73	199.67	68.32	63.45	62.6	56.12	217.2	200.1	5.62

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
22.04517	233.73	199.67	68.32	63.45	62.6	56.12	217.2	200.1	5.62
22.54583	233.11	199.81	68.95	63.43	62.75	56.16	218.05	200.07	5.64
23.04483	232.34	199.98	69.56	63.44	62.8	56.26	218.85	200.04	5.57
23.5455	231.91	200.18	70.22	63.42	62.82	56.37	219.68	200.05	5.53
24.04533	231.41	200.4	70.94	63.43	62.86	56.41	220.33	200.07	5.55
24.54617	230.54	200.68	71.65	63.43	62.9	56.45	221.86	200.03	5.59
25.045	231.31	201.04	72.41	63.39	62.92	56.49	222.66	200.05	5.61
25.544	232.43	201.19	73.19	63.4	62.94	56.5	223.8	200.06	5.59
26.0465	233.4	201.41	74	63.4	62.97	56.52	225.06	200.18	5.60
26.54533	233.79	201.81	74.83	63.39	63.06	56.58	226.68	200.84	5.61
27.04433	233.81	202.13	75.64	63.37	63.05	56.62	228.15	200.92	5.62
27.545	233.71	202.37	76.53	63.37	63.09	56.72	229.53	200.72	5.61
28.04483	233.28	202.84	77.35	63.38	63.15	56.8	231.13	200.76	5.55
28.54467	232.28	203.21	78.2	63.34	63.17	56.86	232.37	200.67	5.53
29.0455	232.74	203.34	79.03	63.34	63.21	56.94	233.58	200.65	5.53
29.54533	233.44	203.54	79.82	63.33	63.25	57.04	234.63	200.65	5.55
30.045	233.6	203.76	80.65	63.31	63.29	57.1	236.03	200.67	5.59
30.54583	234.52	204.1	81.49	63.3	63.32	57.21	237.11	198.92	5.58
31.04567	236.01	204.21	82.43	63.28	63.36	57.31	237.72	200.94	5.58
31.5455	237.32	204.38	83.33	63.27	63.38	57.37	238.37	200.82	5.58
32.04533	238.05	204.43	84.31	63.25	63.4	57.47	238.98	200.73	5.58
32.54517	238.31	204.72	85.36	63.25	63.44	57.58	239.48	200.7	5.60
33.045	238.33	204.8	86.5	63.25	63.48	57.68	239.94	200.6	5.61
33.54567	238.29	204.84	87.73	63.24	63.46	57.72	240.28	200.58	5.54
34.0455	238.42	204.71	89.11	63.24	63.49	57.82	240.72	200.55	5.51
34.54533	238.57	204.91	90.7	63.26	63.41	57.92	241	200.99	5.54
35.04417	238.5	205.08	92.45	63.26	63.51	58	241.79	200.81	5.54
35.545	238.27	205.31	94.39	63.29	63.53	58.08	242.13	200.71	5.58
36.04483	238.22	205.15	96.55	63.31	63.55	58.14	242.8	200.68	5.58
36.5455	237.79	205.4	98.96	63.35	63.55	58.23	243.53	200.62	5.58
37.04533	236.97	205.44	101.61	63.37	63.58	58.33	244.3	200.59	5.59
37.54517	236.36	205.57	104.46	63.41	63.6	58.39	245.08	200.58	5.61
38.045	236.4	205.72	107.53	63.45	63.62	58.45	246.17	200.6	5.64
38.54483	236.2	206	110.82	63.47	63.73	58.53	247.09	200.84	5.60
39.0455	235.87	206.19	114.28	63.53	63.78	58.61	248.4	200.78	5.54
39.54533	235.6	206.37	117.87	63.59	63.65	58.65	249.8	200.74	5.52
40.04517	235.4	206.76	121.57	63.61	63.67	58.7	251.02	200.65	5.54
40.54417	235.32	207	125.4	63.67	63.71	58.76	252.33	200.62	5.57
41.04383	235.05	207.29	129.37	63.73	63.69	58.78	253.84	200.56	5.60
41.5455	234.71	207.57	133.48	63.79	63.71	58.88	255.54	200.84	5.57
42.0445	234.32	207.9	137.69	63.86	63.62	58.96	256.86	200.72	5.60
42.54517	234.23	207.94	141.92	63.94	63.75	59.04	258.07	200.64	5.61
43.045	234.59	208.21	146.23	64.02	63.75	59.08	259.39	200.6	5.64
43.54483	235.71	208.51	150.6	64.1	63.68	59.14	260.39	200.54	5.60

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
43.54483	235.71	208.51	150.6	64.1	63.68	59.14	260.39	200.54	5.60
44.04467	237.37	208.62	154.94	64.19	63.8	59.22	260.91	200.55	5.55
44.54533	238.74	208.84	159.35	64.29	63.82	59.29	261.25	200.74	5.56
45.04517	239.71	208.86	163.77	64.41	63.84	59.35	261.56	200.61	5.59
45.545	240.21	208.75	168.02	64.52	63.86	59.43	261.78	200.51	5.61
46.04483	240.66	208.92	172	64.66	63.92	59.47	262.01	200.48	5.60
46.54567	240.99	208.99	175.85	64.77	63.88	59.55	262.4	200.44	5.62
47.0455	241.04	208.99	179.86	64.96	63.88	59.59	263.06	200.4	5.64
47.54533	241.22	209.19	183.81	65.12	63.91	59.65	263.66	200.69	5.65
48.045	241.04	209.43	187.93	65.31	63.93	59.69	264.62	200.57	5.58
48.544	240.79	209.37	192.83	65.52	63.93	59.73	265.88	200.53	5.57
49.04567	240.1	209.73	197.76	65.75	63.93	59.75	267.31	200.47	5.57
49.5455	239.81	209.9	201.84	66.03	63.97	59.79	268.86	200.44	5.61
50.04433	239.6	210.31	204.55	66.3	63.97	59.81	270.85	200.42	5.60
50.54517	239.4	210.76	206.2	66.6	63.97	59.87	272.64	200.63	5.60
51.045	238.96	211.1	207.49	66.96	63.98	59.89	274.53	200.59	5.60
51.54467	238.91	211.35	208.4	67.34	64	59.95	276.06	200.49	5.62
52.0455	239.05	211.51	209.03	67.76	63.98	59.95	277.28	200.43	5.65
52.54533	238.82	211.68	209.48	68.21	64	60	278.25	200.42	5.55
53.04517	239.07	211.61	209.77	68.7	64.1	60.05	278.77	200.4	5.53
53.545	239.66	211.93	209.93	69.23	64	60.08	279.07	200.67	5.53
54.04567	239.83	211.95	210.05	69.78	64.02	60.12	279.38	200.52	5.57
54.5455	239.58	211.9	210.16	70.38	64.02	60.16	279.47	200.43	5.59
55.04533	239.9	211.94	210.2	70.97	64.03	60.2	279.52	200.4	5.59
55.54517	240.05	211.83	210.27	71.61	64.03	60.26	279.89	200.36	5.58
56.045	239.76	211.97	210.36	72.27	64.03	60.28	280.34	200.31	5.61
56.54483	239.24	212.14	210.44	72.97	64.05	60.32	280.87	200.57	5.58
57.0455	237.88	212.19	210.62	73.67	64.05	60.34	281.98	200.49	5.64
57.54533	236.52	212.48	210.85	74.44	64.07	60.36	283.56	200.45	5.57
58.04517	235.47	212.66	211.14	75.21	64.05	60.4	285.29	200.41	5.54
58.54417	234.53	212.93	211.44	76.02	64.07	60.44	286.98	200.37	5.53
59.04483	234.36	213.29	211.8	76.92	64.07	60.46	289.04	200.4	5.56
59.5455	234.2	213.48	212.07	77.82	64.13	60.46	290.43	200.64	5.61
60.0445	233.64	213.77	212.3	78.8	64.1	60.48	291.56	200.48	5.58
60.54517	234.77	213.97	212.5	79.81	64.19	60.52	292.51	200.44	5.58
61.045	235.35	214.03	212.61	80.88	64.12	60.56	292.92	200.39	5.59
61.54483	235.54	214.13	212.7	81.97	64.12	60.58	293.31	200.33	5.61
62.04567	237.01	214.12	212.7	83.15	64.12	60.62	293.03	200.35	5.64
62.54533	237.64	214.1	212.68	84.32	64.12	60.65	292.97	200.55	5.58
63.04517	238.49	214.06	212.65	85.56	64.1	60.67	292.9	200.41	5.56
63.545	238.52	213.99	212.67	86.85	64.14	60.68	292.87	200.35	5.56
64.04483	238.45	214.1	212.69	88.17	64.14	60.71	292.94	200.29	5.60
64.54567	238.97	214.07	212.74	89.57	64.23	60.73	293.57	200.26	5.60
65.0455	238.65	214.37	212.89	91.06	64.16	60.75	294.61	200.25	5.59

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
65.54533	237.52	214.48	213.1	92.7	64.2	60.77	295.96	200.55	5.59
66.04417	237.2	214.69	213.35	94.45	64.22	60.81	297.62	200.44	5.60
66.544	236.95	215.07	213.62	96.35	64.24	60.83	299.26	200.43	5.63
67.04466	236.59	215.16	213.89	98.46	64.28	60.85	300.59	200.46	5.60
67.5445	237.13	215.47	214.07	100.73	64.34	60.89	301.42	200.43	5.54
68.04533	236.83	215.61	214.2	103.22	64.37	60.91	301.9	200.44	5.51
68.54517	237.27	215.52	214.2	106	64.41	60.95	301.67	200.19	5.53
69.04501	237.76	215.58	214.13	109.1	64.49	60.97	301	200.09	5.58
69.54567	238.85	215.31	214	112.53	64.53	60.99	299.99	200.04	5.60
70.0455	239.1	215.25	213.82	116.39	64.6	61.03	298.76	200	5.58
70.54533	239.53	214.93	213.64	120.66	64.64	61.04	298.04	199.99	5.58
71.04517	239.43	214.84	213.47	125.52	64.72	61.08	296.7	199.36	5.58
71.544	239.32	214.7	213.31	131.09	64.79	61.08	295.57	199.25	5.61
72.04567	239.59	214.59	213.13	137.41	64.87	61.12	294.8	199.2	5.62
72.54467	238.69	214.51	213.05	144.97	64.98	61.12	294.58	199.2	5.57
73.04433	238.14	214.47	213.04	154.13	65.06	61.14	294.57	200.3	5.53
73.54517	237.6	214.51	213.06	163.63	65.21	61.14	294.61	200.35	5.52
74.04501	236.85	214.54	213.06	173.33	65.34	61.18	294.6	200.26	5.54
74.54483	236.42	214.56	213.04	182.07	65.49	61.2	294.48	200.41	5.59
75.0455	237.23	214.4	212.98	189.88	65.66	61.2	293.83	200.33	5.58
75.54533	237.92	214.4	212.88	195.83	65.87	61.24	293	200.57	5.58
76.04517	238.05	214.2	212.65	200.72	66.1	61.26	291.2	200.35	5.58
76.54501	238.98	213.99	212.34	203.71	66.36	61.29	289.22	200.3	5.57
77.04483	239.25	213.52	212	205.83	66.65	61.3	287.05	200.27	5.60
77.5455	240.04	213.09	211.61	207.17	67	61.31	284.65	199.94	5.62
78.04533	240.33	212.68	211.14	208.01	67.42	61.33	281.81	200.31	5.57
78.54617	240.7	212.38	210.71	208.3	67.82	61.31	279.39	200.28	5.52
79.04501	240.29	211.93	210.32	208.42	68.44	61.35	277.13	200.26	5.53
79.54483	240.9	211.48	209.93	208.44	69.31	61.35	274.91	200.21	5.55
80.04567	240.49	211.23	209.5	208.28	70.25	61.39	272.56	200.36	5.59
80.54533	239.91	210.8	209.14	208.12	71.43	61.39	270.52	200.34	5.59
81.04433	239.73	210.37	208.82	207.92	72.79	61.41	268.77	200.3	5.58
81.54417	238.86	210.18	208.55	207.8	74.33	61.41	267.31	200.29	5.58
82.04483	238.46	210.02	208.21	207.49	76.02	61.47	265.22	200.35	5.58
82.54467	237.91	209.78	207.9	207.29	77.86	61.48	263.76	200.26	5.61
83.0455	236.88	209.3	207.69	207.1	79.83	61.52	262.6	200.24	5.62
83.54533	236.42	209.14	207.45	206.88	81.91	61.52	261.2	200.23	5.55
84.04501	236.15	208.8	207.19	206.67	84.13	61.56	259.75	194.17	5.52
84.54583	236.1	208.55	206.77	206.25	86.43	61.6	257.24	200.31	5.52
85.04567	236.1	208.13	206.47	205.99	88.84	61.65	255.6	200.28	5.54
85.54733	236.22	207.76	206.15	205.66	91.35	61.71	253.77	200.23	5.57
86.04533	236.63	207.45	205.83	205.36	93.9	61.78	251.97	200.22	5.59
86.54517	236.76	207.2	205.39	204.89	96.52	61.88	249.17	200.38	5.58
87.04501	236.92	206.56	205	204.55	99.23	61.97	247.44	200.29	5.57

Table B1. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
87.54567	237.17	206.2	204.68	204.25	101.99	62.09	245.87	200.25	5.59
88.0455	237.33	206.07	204.39	203.96	104.74	62.28	244.37	200.21	5.60
88.54533	237.47	205.77	204.1	203.69	107.48	62.48	242.93	200.18	5.62
89.04517	237.24	205.43	203.65	203.23	110.28	62.69	240.36	200.31	5.58
89.544	237.26	205.07	203.39	202.97	113.09	62.94	239.32	200.24	5.54
90.04567	237.36	204.67	203.22	202.79	115.96	63.24	238.42	200.2	5.53
90.5455	237.22	204.57	203.04	202.65	118.77	63.56	237.62	200.16	5.56
91.04433	237.11	204.51	202.9	202.49	121.58	63.9	236.89	200.14	5.58
91.54517	236.86	204.3	202.79	202.36	124.36	64.26	236.32	200.12	5.59
92.04501	236.66	204.35	202.45	202.02	127.52	64.65	234.45	200.31	5.58
92.54483	236.48	203.88	202.33	201.91	130.92	65.03	234.07	200.22	5.58
93.0455	236.37	203.9	202.27	201.86	134.49	65.43	233.85	200.2	5.59
93.54533	236.16	203.87	202.22	201.82	137.9	65.88	233.63	200.2	5.62
94.04517	236	203.83	202.2	201.77	141.24	66.33	233.39	200.17	5.63
94.54501	235.92	203.7	202.15	201.72	144.8	66.79	233.11	200.15	5.56
95.04483	235.85	203.58	202.07	201.66	148.53	67.24	232.89	200.14	5.54
95.5455	235.55	203.54	201.81	201.38	154.56	67.71	231.06	200.33	5.56
96.04533	235.58	203.31	201.66	201.25	160.88	68.24	230.71	200.22	5.58
96.54517	235.74	203.31	201.59	201.18	166.14	68.74	230.42	200.21	5.61
97.04417	235.9	203.25	201.53	201.12	171	69.29	230	200.2	5.59
97.544	235.96	203.18	201.44	201.03	176.74	69.84	229.54	200.18	5.59
98.04467	236.15	203.13	201.34	200.92	181.62	70.44	229.04	200.15	5.59
98.54533	236.28	202.8	201.24	200.83	185.93	71.04	228.46	200.13	5.63
99.04517	236.19	202.8	200.98	200.51	193.58	71.68	226.57	200.39	5.61
99.54501	236.01	202.48	200.67	200.28	195.75	72.36	225.64	200.24	5.55
100.0448	236.38	202.48	200.53	200.13	196.75	73.11	225.08	200.21	5.54
100.5457	236.67	202.32	200.44	200.03	197.55	73.93	224.53	200.18	5.55
101.0455	236.74	202.42	200.33	199.92	198.22	74.78	223.95	200.17	5.58
101.5453	236.85	202.19	200.2	199.79	198.75	75.72	223.35	200.14	5.59
102.045	236.4	201.92	199.84	199.4	199.16	76.75	221.23	200.3	5.58
102.5458	236.45	201.72	199.63	199.22	199.38	77.86	220.54	200.23	5.58
103.0457	236.61	201.65	199.54	199.11	199.49	79.06	220.08	200.17	5.57
103.5455	236.81	201.45	199.43	199.02	199.39	80.37	219.57	200.15	5.61
104.0462	236.73	201.45	199.3	198.89	199.36	81.75	219.05	200.11	5.63
104.5452	236.77	201.42	199.21	198.8	199.3	83.21	218.56	200.1	5.57
105.045	236.77	201.09	199.11	198.71	199.25	84.72	218.07	200.1	5.54
105.5465	236.16	201.07	198.8	198.33	198.82	86.24	216.18	200.31	5.55
106.0455	236.21	200.64	198.6	198.19	198.82	87.84	215.69	200.2	5.59
106.5462	236.5	200.72	198.55	198.16	198.78	89.44	215.42	200.14	5.62
107.0442	236.57	200.55	198.51	198.1	198.82	91.12	215.28	200.14	5.59
107.545	236.64	200.41	198.46	198.05	198.71	92.78	215	200.12	5.59
108.0467	236.66	200.48	198.4	198.01	198.67	94.45	214.76	200.06	5.60
108.5447	236.69	200.84	198.37	197.95	198.64	96.08	214.59	200.08	5.62
109.0443	236.19	200.19	198.11	197.67	198.2	97.68	213.01	200.27	5.60

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
109.5452	236.23	200.28	197.97	197.58	198.24	99.31	212.8	200.21	5.54
110.045	236.44	200.62	197.95	197.56	198.26	101.01	212.77	200.14	5.53
110.5448	236.53	200.21	197.97	197.57	198.26	102.71	212.76	200.15	5.54
111.0455	236.64	200.42	197.95	197.56	198.24	104.43	212.71	200.12	5.57
111.5453	236.69	200.28	197.93	197.56	198.24	106.17	212.61	200.09	5.58
112.0452	236.6	200.44	197.93	197.54	198.2	107.88	212.53	200.1	5.58
112.545	236.58	200.4	197.89	197.52	198.18	109.62	212.4	200.05	5.59
113.0438	236.15	200.31	197.66	197.23	197.79	111.31	210.97	200.29	5.59
113.5455	236.22	199.86	197.57	197.16	197.86	113.06	210.9	200.2	5.61
114.0453	236.47	200.11	197.59	197.19	197.89	114.86	210.97	200.2	5.63
114.5443	236.7	199.97	197.62	197.19	197.91	116.74	211.09	200.14	5.58
115.0442	236.61	200.15	197.62	197.21	197.93	118.57	211.13	200.14	5.54
115.5448	236.63	199.75	197.62	197.21	197.93	120.41	211.1	200.14	5.54
116.0447	236.72	199.98	197.62	197.23	197.91	122.28	211.08	200.1	5.57
116.5445	236.79	200.22	197.62	197.23	197.91	124.12	211.06	200.11	5.59
117.0452	236.25	200.05	197.35	196.92	197.51	126.03	209.46	200.28	5.60
117.545	236.43	199.68	197.28	196.88	197.6	128.15	209.59	200.26	5.59
118.0448	236.63	199.82	197.35	196.94	197.66	130.54	209.85	200.24	5.60
118.5457	236.72	199.77	197.38	196.99	197.73	132.95	210	200.21	5.60
119.0455	236.66	200	197.42	197.03	197.74	135.24	210.19	200.2	5.64
119.5453	236.77	199.87	197.44	197.05	197.74	137.48	210.2	200.18	5.57
120.045	236.86	199.91	197.44	197.04	197.74	139.68	210.18	200.16	5.53
120.5448	236.91	200.09	197.42	197.02	197.71	141.9	210.13	200.15	5.54
121.0457	236.21	200.21	197.19	196.74	197.36	144.78	208.79	200.25	5.57
121.5455	236.26	199.51	197.13	196.74	197.45	148.23	208.95	200.26	5.59
122.0453	236.53	199.91	197.22	196.81	197.56	151.36	209.28	200.26	5.59
122.546	236.68	199.53	197.26	196.88	197.6	154.2	209.52	200.24	5.59
123.044	236.6	199.55	197.29	196.9	197.61	157.07	209.63	200.22	5.58
123.5457	236.67	199.49	197.33	196.91	197.63	159.96	209.67	200.18	5.60
124.0445	236.57	199.76	197.31	196.9	197.5	162.75	209.67	200.14	5.63
124.5443	236.58	199.76	197.31	196.9	197.59	165.69	209.58	200.14	5.60
125.0452	236.33	200.1	197.2	196.73	197.25	173.7	208.67	200.31	5.55
125.545	236.08	199.1	197.04	196.64	197.32	179.27	208.37	200.18	5.54
126.0457	236.28	199.69	197.07	196.68	197.43	181.44	208.71	200.26	5.56
126.5455	236.47	199.31	197.14	196.75	197.48	183.63	208.98	200.24	5.62
127.0453	236.51	199.76	197.18	196.78	197.59	185.85	209.17	200.22	5.61
127.5452	236.38	199.31	197.2	196.82	197.5	187.63	209.17	200.15	5.61
128.045	236.4	199.61	197.19	196.8	197.48	189.37	209.06	200.12	5.63
128.5448	236.51	199.43	197.18	196.78	197.48	191.75	209	200.06	5.64
129.0455	236.49	199.06	197.18	196.78	197.48	193.13	208.96	200.06	5.61
129.5453	236.04	199.77	197.01	196.62	197.28	195.26	208.22	200.21	5.56
130.0452	236.15	199.31	197.01	196.6	197.32	196.37	208.22	200.18	5.57
130.544	236.43	198.81	197.09	196.66	197.43	196.66	208.57	200.24	5.59
131.0438	236.54	199.77	197.12	196.73	197.44	196.8	208.75	200.18	5.61

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
131.5447	236.58	199.59	197.12	196.73	197.43	196.91	208.75	200.2	5.59
132.0445	236.59	199.38	197.1	196.71	197.41	196.99	208.68	200.12	5.61
132.5452	236.54	199.09	197.1	196.71	197.32	197.05	208.61	200.13	5.62
133.045	236.36	199.18	196.98	196.58	197.21	195.58	207.86	200.23	5.65
133.5448	236.36	199.46	196.96	196.58	197.3	196.72	208	200.16	5.59
134.0465	236.54	200.29	196.99	196.6	197.3	197.03	208.12	200.1	5.57
134.5453	236.64	199.7	197.06	196.67	197.42	197.15	208.48	200.22	5.59
135.0452	236.72	199.89	197.1	196.71	197.4	197.14	208.51	200.1	5.63
135.545	236.52	200	197.08	196.67	197.38	197.12	208.47	200.06	5.62
136.0448	236.41	200.5	197.06	196.67	197.37	197.13	208.46	200.05	5.61
136.5457	236.39	200.34	197.06	196.67	197.37	197.12	208.38	200.03	5.63
137.0455	236.47	199.98	197.06	196.65	197.37	197.12	208.35	200.04	5.65
137.5453	236.48	199.91	197.06	196.67	197.38	197.13	208.44	199.99	5.58
138.045	236.21	199.91	196.95	196.56	197.29	196.22	207.93	200.16	5.55
138.544	236.39	199.62	196.97	196.6	197.33	197.03	208.08	200.11	5.55
139.0457	236.5	199.28	197.03	196.63	197.4	197.15	208.35	200.18	5.58
139.5455	236.57	200.12	197.08	196.68	197.4	197.17	208.44	200.19	5.60
140.0453	236.53	200.09	197.06	196.67	197.38	197.13	208.4	200	5.59
140.5442	236.25	199.68	196.95	196.58	197.29	196.74	207.96	200.1	5.59
141.045	236.44	199.62	197.01	196.61	197.35	197.11	208.12	200.09	5.59
141.5447	236.55	199.85	197.06	196.68	197.42	197.19	208.42	200.17	5.61
142.0445	236.55	200.52	197.08	196.67	197.38	197.13	208.38	200.08	5.61
142.5453	236.5	200.36	197.04	196.67	197.38	197.13	208.28	200.02	5.55
143.0452	236.52	199.98	197.02	196.65	197.38	197.13	208.27	200.01	5.54
143.545	236.59	199.6	197.02	196.63	197.36	197.11	208.27	199.98	5.55
144.0457	236.64	199.92	197.02	196.65	197.36	197.11	208.23	199.97	5.58
144.5455	236.66	200.07	197.02	196.63	197.36	197.11	208.22	199.97	5.61
145.0453	236.71	200.23	197.01	196.63	197.35	197.11	208.17	199.94	5.58
145.5452	236.66	200.1	197.01	196.63	197.36	197.13	208.2	199.85	5.60
146.045	236.71	200.14	197.02	196.65	197.38	197.13	208.19	199.91	5.61
146.5438	236.5	199.98	196.93	196.56	197.33	196.49	207.86	200.14	5.64
147.0455	236.69	199.82	196.99	196.61	197.38	197.15	208.08	200.07	5.61
147.5445	236.89	200.3	197.04	196.67	197.43	197.2	208.32	200.23	5.56
148.0443	236.91	199.64	197.08	196.68	197.45	197.2	208.35	200.08	5.56
148.545	236.87	199.83	197.06	196.66	197.4	197.17	208.26	200.12	5.59
149.0448	236.85	200.14	197.02	196.65	197.27	197.13	208.18	199.97	5.62
149.5455	236.8	200.46	197.02	196.63	197.35	197.13	208.22	199.96	5.60
150.0453	236.76	199.31	197.02	196.65	197.36	197.13	208.18	200	5.60
150.5452	236.69	199.92	197.02	196.65	197.38	197.13	208.2	199.95	5.61
151.045	236.6	199.85	197.02	196.63	197.36	197.13	208.18	199.9	5.64
151.5448	236.51	200.6	197.04	196.63	197.36	197.13	208.19	199.87	5.59
152.0455	236.28	199.87	196.91	196.5	197.09	196.25	207.58	197.73	5.55
152.5463	236.12	200.03	196.65	196.25	196.95	196.66	206.4	198.68	5.55
153.0452	236.41	199.46	196.79	196.43	197.31	197.02	207.63	199.03	5.58

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
153.546	236.62	200.3	196.92	196.54	197.33	197.08	207.78	201.15	5.61
154.0448	236.89	199.73	197.09	196.72	197.65	197.33	208.74	200.91	5.58
154.5457	237.16	200.05	197.2	196.84	197.61	197.4	209.14	200.93	5.59
155.0455	237.18	200.41	197.24	196.86	197.56	197.31	209.05	200.38	5.60
155.5453	237.05	199.89	197.18	196.77	197.52	197.27	208.86	200.57	5.65
156.045	237.02	200.14	197.17	196.79	197.52	197.31	208.83	200.47	5.61
156.544	237.02	200.01	197.16	196.79	197.52	197.29	208.85	200.46	5.55
157.0447	236.91	200.39	197.17	196.79	197.56	197.31	208.9	200.4	5.55
157.5445	236.85	200.21	197.19	196.81	197.56	197.31	208.95	200.39	5.58
158.0453	236.77	199.91	197.19	196.81	197.54	197.31	208.99	200.39	5.62
158.5452	236.68	200	197.18	196.79	197.54	197.29	208.89	200.73	5.58
159.045	236.75	199.73	197.15	196.76	197.47	197.2	208.73	200.87	5.59
159.5457	236.73	199.96	197.18	196.81	197.6	197.36	209.06	200.88	5.61
160.0455	236.78	200.64	197.24	196.88	197.63	197.4	209.34	200.78	5.64
160.5453	236.79	200.48	197.26	196.88	197.6	197.38	209.31	200.73	5.61
161.0452	236.41	201.23	197.26	196.86	197.58	197.37	209.25	200.6	5.57
161.545	236.44	200.39	197.22	196.85	197.6	197.35	209.23	200.54	5.56
162.0457	236.41	200.25	197.22	196.85	197.58	197.35	209.2	200.55	5.57
162.5455	236.55	200.23	197.22	196.85	197.58	197.37	209.23	200.49	5.63
163.0453	236.64	199.76	197.22	196.85	197.58	197.35	209.22	200.52	5.61
163.5452	236.68	200.07	197.22	196.85	197.58	197.35	209.21	200.54	5.62
164.0458	236.61	200.53	197.17	196.79	197.51	197.29	208.88	200.82	5.62
164.5438	236.75	200.97	197.2	196.86	197.62	197.4	209.24	200.88	5.66
165.0455	236.89	200.32	197.28	196.88	197.65	197.42	209.38	200.79	5.58
165.5453	237	199.82	197.28	196.9	197.62	197.4	209.33	200.77	5.55
166.0452	236.98	200.61	197.26	196.88	197.62	197.38	209.31	200.65	5.56
166.544	236.98	200.41	197.24	196.88	197.58	197.38	209.24	200.62	5.61
167.0448	236.95	200.09	197.24	196.87	197.6	197.37	209.24	200.61	5.60
167.5447	236.98	200.52	197.24	196.85	197.6	197.37	209.22	200.59	5.61
168.0445	237.02	200.21	197.22	196.83	197.6	197.38	209.16	200.55	5.59
168.5452	237.2	200.59	197.22	196.85	197.6	197.37	209.16	200.55	5.61
169.045	236.93	200.25	197.22	196.85	197.6	197.37	209.15	200.55	5.63
169.5448	236.8	199.96	197.17	196.79	197.6	197.28	209.01	201.24	5.58
170.0455	237.04	199.78	197.24	196.88	197.67	197.46	209.33	201.15	5.55
170.5453	237.16	199.84	197.3	196.92	197.69	197.47	209.52	201.12	5.56
171.0452	237.07	199.98	197.3	196.94	197.71	197.48	209.61	201.05	5.60
171.545	236.98	199.8	197.31	196.94	197.67	197.46	209.59	200.97	5.61
172.0448	236.77	200.02	197.28	196.94	197.69	197.46	209.55	200.85	5.60
172.5465	236.75	199.88	197.3	196.94	197.67	197.44	209.58	200.85	5.61
173.0455	236.77	199.98	197.28	196.9	197.66	197.44	209.53	200.89	5.63
173.5453	236.81	199.66	197.3	196.9	197.66	197.42	209.5	200.84	5.64
174.0442	236.68	200.11	197.3	196.92	197.66	197.44	209.56	200.86	5.56
174.544	236.67	200.27	197.25	196.85	197.55	197.3	209.11	201.12	5.56
175.0447	236.7	200.15	197.25	196.87	197.57	197.44	209.43	201.06	5.58

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
175.5445	236.83	200.08	197.3	196.94	197.71	197.5	209.69	201.02	5.60
176.0453	236.88	199.83	197.32	196.96	197.71	197.48	209.76	201.01	5.61
176.5452	236.83	199.76	197.32	196.96	197.68	197.46	209.64	200.88	5.59
177.045	236.94	200.33	197.32	196.93	197.66	197.45	209.57	200.8	5.61
177.5457	236.96	200.28	197.3	196.91	197.68	197.45	209.49	200.78	5.63
178.0455	237.03	199.49	197.29	196.91	197.66	197.45	209.44	200.79	5.64
178.5453	237.13	199.69	197.29	196.91	197.68	197.47	209.47	200.81	5.56
179.0452	237.06	200.12	197.29	196.89	197.66	197.45	209.42	200.82	5.55
179.5458	237.21	200.28	197.27	196.91	197.65	197.45	209.38	200.78	5.55
180.0457	237.17	200.44	197.27	196.89	197.66	197.43	209.39	200.79	5.62
180.5455	237.07	200.82	197.18	196.82	197.59	197.4	209.03	201.14	5.59
181.0453	237.24	200.3	197.25	196.88	197.66	197.47	209.35	201.13	5.60
181.5442	237.1	199.85	197.27	196.91	197.7	197.52	209.49	200.94	5.61
182.044	237.01	200.76	197.15	196.74	197.34	197.09	208.36	199.11	5.63
182.5448	237.07	200.34	197.08	196.72	197.54	197.35	208.68	200.86	5.62
183.0447	237.3	200.05	197.2	196.83	197.63	197.45	209.16	200.87	5.55
183.5445	237.34	200.52	197.24	196.88	197.65	197.44	209.27	200.73	5.55
184.0452	237.38	200.12	197.24	196.88	197.65	197.44	209.29	200.7	5.58
184.545	237.18	200.43	197.24	196.88	197.54	197.42	209.25	200.56	5.60
185.0448	237.13	200.66	197.24	196.88	197.62	197.4	209.23	200.61	5.57
185.5455	237.09	200	197.22	196.87	197.62	197.37	209.24	199.08	5.56
186.0453	237.06	200.52	197.24	196.88	197.71	197.46	209.45	201.59	5.59
186.5452	237.18	199.84	197.33	196.99	197.78	197.6	209.9	201.54	5.58
187.045	237.17	200.27	197.41	197.05	197.82	197.62	210.04	201.59	5.62
187.5458	237.04	199.97	197.43	197.05	197.78	197.59	210.04	201.34	5.60
188.0455	236.99	200.2	197.39	197.03	197.79	197.55	209.98	201.24	5.53
188.5463	236.88	200.58	197.39	197.02	197.7	197.55	209.98	201.21	5.55
189.0452	236.87	200.78	197.39	197.02	197.75	197.54	209.92	201.09	5.57
189.545	236.89	200.22	197.38	197	197.75	197.56	209.91	201.16	5.61
190.044	236.96	199.96	197.34	196.95	197.61	197.36	209.58	199.79	5.60
190.5457	236.6	199.6	197.2	196.82	197.56	197.34	209.05	200.45	5.58
191.0445	236.78	199.53	197.2	196.82	197.58	197.38	209.11	200.3	5.58
191.5453	236.94	200.05	197.15	196.77	197.42	197.2	208.65	199.9	5.61
192.045	237.11	200.18	197.15	196.79	197.58	197.4	208.95	200.7	5.64
192.5448	237.32	200.18	197.2	196.86	197.65	197.45	209.24	200.74	5.57
193.0447	237.47	200.43	197.24	196.86	197.63	197.44	209.26	200.69	5.56
193.5455	237.61	199.77	197.22	196.86	197.56	197.39	209.15	200.48	5.54
194.0453	237.68	199.89	197.19	196.83	197.58	197.39	209.02	200.44	5.58
194.5452	237.74	200.34	197.17	196.83	197.6	197.39	208.96	200.4	5.60
195.045	237.72	199.88	197.17	196.82	197.62	197.37	208.89	200.37	5.59
195.5457	237.83	199.84	197.16	196.8	197.57	197.39	208.9	200.49	5.59
196.0455	237.8	200.26	197.16	196.8	197.57	197.37	208.95	200.43	5.61
196.5453	237.62	200.38	197.2	196.8	197.59	197.38	208.9	200.34	5.63
197.0452	237.44	199.9	197.11	196.75	197.54	197.31	208.62	200.81	5.60

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
197.544	237.51	199.92	197.18	196.82	197.61	197.43	208.99	200.86	5.55
198.0457	237.54	200.16	197.22	196.86	197.67	197.47	209.25	200.81	5.54
198.5455	237.39	200.05	197.24	196.88	197.65	197.44	209.27	200.56	5.55
199.0443	237.18	200.61	197.22	196.87	197.63	197.4	209.18	200.46	5.59
199.5452	236.99	199.54	197.21	196.85	197.6	197.41	209.13	200.44	5.60
200.045	236.97	199.99	197.23	196.85	197.59	197.41	209.12	200.41	5.58
200.5448	236.95	200.06	197.23	196.85	197.61	197.39	209.22	200.46	5.58
201.0447	236.9	199.42	197.23	196.85	197.63	197.43	209.22	200.55	5.60
201.5453	236.89	199.88	197.25	196.86	197.63	197.41	209.23	200.43	5.64
202.0452	236.96	200.37	197.25	196.86	197.61	197.41	209.25	200.56	5.60
202.545	237	199.8	197.24	196.88	197.63	197.42	209.34	200.45	5.56
203.0448	237.09	200.64	197.26	196.88	197.61	197.42	209.3	200.4	5.56
203.5455	237.07	200.28	197.22	196.86	197.6	197.38	209.29	199.15	5.58
204.0453	236.86	200.75	197.15	196.81	197.51	197.39	209.01	200.86	5.61
204.5452	237.04	200.29	197.23	196.89	197.67	197.49	209.34	200.99	5.60
205.045	237.26	200.51	197.26	196.91	197.68	197.46	209.39	200.7	5.59
205.5448	237.44	200.36	197.25	196.87	197.64	197.44	209.26	200.52	5.61
206.0455	237.58	199.56	197.21	196.86	197.63	197.39	209.13	200.42	5.64
206.5453	237.58	199.92	197.22	196.84	197.59	197.41	209.09	200.5	5.59
207.0443	237.59	200.51	197.16	196.81	197.59	197.4	208.88	200.67	5.56
207.5442	237.77	200.08	197.18	196.84	197.65	197.47	209.11	200.84	5.55
208.0448	237.9	199.85	197.22	196.86	197.67	197.47	209.24	200.71	5.58
208.5447	237.97	199.7	197.24	196.87	197.67	197.46	209.24	200.64	5.61
209.0455	237.79	200.34	197.23	196.85	197.66	197.44	209.19	200.54	5.60
209.5453	237.65	200.18	197.21	196.85	197.62	197.44	209.12	200.56	5.60
210.045	237.58	200.26	197.21	196.85	197.62	197.43	209.1	200.54	5.61
210.5448	237.64	199.94	197.2	196.86	197.63	197.43	209.14	200.55	5.63
211.0457	237.48	199.98	197.18	196.79	197.54	197.31	208.8	200.84	5.59
211.5455	237.36	200.37	197.18	196.83	197.7	197.43	209.1	200.86	5.55
212.0453	237.18	200.23	197.24	196.9	197.67	197.49	209.39	200.77	5.53
212.5452	237.06	200.25	197.28	196.92	197.69	197.48	209.45	200.69	5.55
213.044	236.97	199.93	197.26	196.91	197.66	197.46	209.43	200.59	5.58
213.5457	236.97	200.33	197.27	196.89	197.66	197.45	209.38	200.59	5.60
214.0455	236.99	200.74	197.25	196.89	197.64	197.43	209.41	200.53	5.58
214.5443	237	200.31	197.25	196.89	197.66	197.45	209.4	200.55	5.61
215.0452	237.07	200.26	197.25	196.88	197.65	197.45	209.42	200.49	5.64
215.545	237.14	200.41	197.28	196.86	197.65	197.45	209.42	200.62	5.63
216.0448	237.09	200.75	197.26	196.88	197.67	197.46	209.48	200.5	5.56
216.5447	237.11	200.9	197.26	196.9	197.66	197.46	209.42	200.51	5.54
217.0453	237.22	200.2	197.25	196.89	197.64	197.43	209.38	200.57	5.55
217.5452	237.24	200.11	197.16	196.8	197.57	197.37	209	200.84	5.59
218.045	237.46	200.08	197.21	196.88	197.61	197.48	209.34	200.81	5.60
218.5448	237.57	200.23	197.27	196.91	197.7	197.49	209.47	200.89	5.59

Table B1. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
219.0455	237.72	200.03	197.27	196.92	197.69	197.49	209.42	200.67	5.60
219.5453	237.75	200.48	197.24	196.88	197.65	197.46	209.26	200.59	5.61
220.0452	237.83	200.43	197.21	196.87	197.64	197.44	209.18	200.57	5.64
220.545	237.87	200.5	197.21	196.83	197.64	197.43	209.16	200.51	5.57
221.0438	237.87	200.19	197.2	196.87	197.64	197.45	209.21	200.54	5.54
221.5455	237.87	199.83	197.2	196.86	197.63	197.43	209.18	200.56	5.54
222.0445	237.82	200.16	197.22	196.86	197.65	197.43	209.16	200.5	5.58
222.5443	237.73	200.19	197.2	196.86	197.63	197.44	209.17	200.57	5.60
223.045	237.74	199.88	197.21	196.85	197.64	197.42	209.25	200.52	5.60
223.5448	237.67	200.4	197.19	196.87	197.57	197.44	209.22	200.55	5.61
224.0455	237.58	199.86	197.23	196.87	197.66	197.45	209.25	200.44	5.62
224.5453	237.46	200.35	197.16	196.79	197.5	197.27	208.74	200.8	5.65
225.0452	237.34	199.97	197.18	196.84	197.65	197.45	209.22	200.87	5.57
225.545	237.43	200.33	197.26	196.9	197.7	197.51	209.52	200.92	5.55
226.0448	237.31	200.77	197.29	196.94	197.72	197.51	209.61	200.78	5.56
226.5457	237.2	199.98	197.26	196.9	197.66	197.46	209.46	200.54	5.61
227.0455	237.13	199.77	197.25	196.89	197.66	197.43	209.44	200.54	5.60
227.5452	237.13	200.28	197.25	196.87	197.64	197.45	209.4	200.5	5.57
228.045	237.17	200.1	197.23	196.88	197.72	197.43	209.4	200.47	5.58
228.5448	237.28	200.78	197.22	196.88	197.65	197.45	209.4	200.52	5.61
229.0457	237.38	200.19	197.24	196.88	197.67	197.45	209.42	200.55	5.63
229.5455	237.45	200.36	197.22	196.87	197.65	197.46	209.42	200.48	5.60
230.0443	237.49	200.67	197.23	196.87	197.64	197.44	209.38	200.59	5.56

Table B2-Temperature and production data for run 2

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
5.03E-02	244.38	62.97	61.22	63.23	62.27	56.12	241.12	201.27	5.57
0.5473334	235.13	177.74	61.22	63.3	62.22	56.21	206.3	200.52	5.55
1.047167	235	190.44	61.22	63.3	62.24	56.21	206.1	200.42	5.55
1.546	232.72	191.83	61.23	63.33	62.25	56.22	205.94	200.38	5.57
2.046833	233.01	191.76	61.25	63.35	62.29	56.24	205.9	200.39	5.59
2.545667	233.27	191.9	61.24	63.29	62.23	56.18	206.05	200.41	5.61
3.0455	233.71	192.27	61.24	63.3	62.24	56.21	206.17	200.39	5.60
3.547167	233.64	192.8	61.25	63.31	62.26	56.23	206.68	200.43	5.61
4.046167	233.63	193.35	61.26	63.33	62.29	56.22	206.79	200.4	5.62
4.545833	233.77	193.67	61.32	63.32	62.3	56.24	206.47	200.37	5.62
5.046667	233.89	193.67	61.41	63.34	62.28	56.25	206.7	200.37	5.57
5.5455	233.01	193.86	61.5	63.31	62.31	56.24	206.63	200.36	5.55
6.046333	233.49	193.8	61.57	63.33	62.42	56.24	206.9	200.36	5.56
6.546166	232.89	194.26	61.66	63.36	62.34	56.25	207.43	200.43	5.58
7.046	233.01	194.88	61.8	63.37	62.45	56.3	207.21	199.85	5.58
7.546667	233.55	195.29	61.93	63.37	62.35	56.24	207.68	199.94	5.58
8.045667	233.74	195.48	62.06	63.38	62.36	56.26	207.62	199.96	5.58
8.546334	233.64	195.83	62.18	63.39	62.34	56.27	208.53	200.02	5.58
9.046167	232.78	196.22	62.29	63.39	62.35	56.26	208.66	200.06	5.62
9.546	232.54	196.58	62.32	63.4	62.29	56.26	209	200.09	5.64
10.04583	232.16	196.71	62.34	63.4	62.4	56.31	208.93	200.16	5.58
10.5465	231.61	196.91	62.39	63.37	62.39	56.3	208.94	200.16	5.56
11.04633	231.36	197.1	62.44	63.4	62.42	56.32	209.51	200.23	5.57
11.54617	230.42	197.31	62.53	63.42	62.43	56.31	209.44	200.08	5.59
12.046	230.34	197.35	62.64	63.43	62.45	56.34	209.43	200.03	5.60
12.54583	230.52	197.44	62.74	63.42	62.46	56.35	209.52	200.68	5.59
13.0465	230.58	197.5	62.87	63.42	62.45	56.35	210.39	200.91	5.58
13.5455	229.84	197.73	63.05	63.43	62.46	56.34	210.51	201.41	5.61
14.04533	229.69	197.71	63.25	63.42	62.46	56.35	210.99	201.26	5.65
14.546	229.74	197.72	63.47	63.43	62.47	56.36	211.01	200.99	5.60
15.04583	229.89	198.01	63.71	63.39	62.46	56.4	211.24	200.45	5.55
15.5465	231.96	198.2	63.97	63.38	62.47	56.37	211.94	200.67	5.55
16.04633	234.3	198.52	64.28	63.36	62.45	56.38	212.6	200.67	5.57
16.54617	235.32	199.01	64.65	63.35	62.48	56.39	213.55	200.74	5.61
17.046	234.25	199.46	65.1	63.34	62.53	56.4	215.23	200.77	5.60
17.54583	233.76	200.09	65.62	63.35	62.52	56.44	216.72	200.81	5.60
18.04667	233.95	200.84	66.2	63.35	62.53	56.43	218.41	200.92	5.60
18.5455	233.01	201.35	66.89	63.36	62.56	56.44	220.05	200.84	5.63
19.04533	233.49	201.9	67.68	63.35	62.48	56.49	221.47	200.41	5.63
19.546	233.7	202.43	68.67	63.34	62.62	56.5	222.26	200.37	5.58
20.045	233.84	202.21	69.77	63.33	62.69	56.49	221.34	200.32	5.57
20.54483	233.95	201.89	70.97	63.31	62.74	56.5	220.82	200.29	5.58
21.0455	234.23	201.62	72.13	63.3	62.77	56.51	220.39	200.27	5.62
21.54533	234.35	201.56	73.25	63.31	62.82	56.49	220.09	200.25	5.62

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
22.04517	234.5	201.35	74.2	63.27	62.81	56.48	219.54	200.21	5.62
22.54683	234.93	201.33	75.08	63.24	62.8	56.43	219.27	200.23	5.63
23.04483	234.4	201.35	75.84	63.23	62.87	56.44	219.33	200.18	5.63
23.5465	235.32	201.17	76.51	63.2	62.88	56.43	219.87	200.17	5.59
24.04633	234.04	201.3	77.19	63.19	62.93	56.45	220.69	200.18	5.57
24.54617	234.7	201.42	77.9	63.2	62.96	56.49	221.31	200.38	5.56
25.046	235.12	201.56	78.67	63.18	62.99	56.58	222.08	200.16	5.59
25.54483	235.16	201.71	79.47	63.19	63.02	56.65	223.01	200.15	5.61
26.04567	233.9	201.84	80.25	63.18	63.06	56.72	223.52	200.14	5.59
26.54633	234.47	201.92	80.99	63.17	63.09	56.78	223.98	200.14	5.59
27.04617	234.28	202.06	81.67	63.16	63.12	56.85	224.87	200.16	5.61
27.546	233.82	202.3	82.38	63.15	63.17	56.9	226.19	200.2	5.64
28.04483	233.42	202.65	83.08	63.18	63.18	57	227.97	200.16	5.62
28.54567	232.39	202.93	83.87	63.19	63.23	57.07	229.78	200.23	5.58
29.04633	231.31	203.37	84.74	63.16	63.25	57.13	232.31	201.02	5.57
29.54617	231.35	204.07	85.72	63.17	63.25	57.22	235.42	200.84	5.59
30.046	230.14	204.85	86.81	63.18	63.29	57.32	239.11	200.86	5.62
30.54483	230.42	205.54	88.05	63.22	63.34	57.45	243.26	200.37	5.60
31.0465	230.16	206.12	89.56	63.23	63.35	57.57	246.96	200.57	5.61
31.5455	230.67	206.94	91.28	63.22	63.39	57.69	250.05	200.61	5.63
32.04617	230.89	207.37	93.26	63.25	63.46	57.81	251.99	200.59	5.65
32.54517	231.31	207.76	96	63.28	63.51	57.94	252.95	201.1	5.61
33.045	232.23	207.89	100.26	63.27	63.53	58.04	253.38	201.08	5.57
33.54567	232.6	207.86	104.34	63.3	63.54	58.15	253.14	200.97	5.57
34.04633	232.03	207.76	107.65	63.31	63.53	58.23	252.52	200.81	5.60
34.54617	232.06	207.49	110.39	63.33	63.54	58.31	251.5	200.72	5.62
35.04517	233.11	207.33	112.75	63.36	63.57	58.4	250.59	200.63	5.59
35.545	234.78	207.18	114.99	63.37	63.58	58.48	250.06	200.58	5.61
36.04667	234.11	207.04	117.18	63.42	63.59	58.55	249.51	200.52	5.62
36.5465	233.76	206.87	119.39	63.46	63.59	58.59	249.17	200.93	5.63
37.04617	233.77	206.84	121.62	63.51	63.62	58.66	249.31	200.83	5.57
37.546	234.15	206.91	123.92	63.57	63.63	58.72	249.09	200.78	5.56
38.045	234.64	207.06	126.19	63.62	63.64	58.77	249.36	200.74	5.55
38.54483	233.48	207.1	128.61	63.68	63.68	58.82	249.99	200.71	5.61
39.0455	234.03	207.27	131.1	63.75	63.71	58.88	250.89	200.68	5.60
39.54717	233.62	207.4	133.68	63.81	63.62	58.94	252.25	200.66	5.60
40.04517	232.93	207.73	136.38	63.89	63.76	59.01	254.35	200.65	5.61
40.545	232.71	208.29	139.28	63.98	63.79	59.05	257.45	200.81	5.59
41.04567	232.18	208.83	142.47	64.06	63.79	59.12	261.1	200.78	5.62
41.5455	232.2	209.54	145.89	64.14	63.76	59.14	265.27	200.81	5.58
42.04633	232.92	210.19	149.7	64.23	63.75	59.15	269.25	200.82	5.56
42.54517	232.18	210.75	153.91	64.35	63.76	59.2	272.58	200.79	5.56
43.045	232.81	211.1	158.43	64.47	63.77	59.24	274.95	199.68	5.57
43.54583	232.91	211.36	163.18	64.63	63.79	59.34	276.21	199.69	5.61

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
44.0465	233.35	211.47	168.14	64.78	63.82	59.43	276.45	200.24	5.59
44.54633	234	211.44	173.44	64.94	63.83	59.45	275.83	200.85	5.60
45.04517	234.63	211.36	178.48	65.16	63.85	59.54	274.98	199.88	5.60
45.546	234.6	211.35	183.05	65.39	63.88	59.62	274.12	200.84	5.63
46.04583	236.04	211.25	187.36	65.62	63.91	59.68	273.29	200.77	5.61
46.54567	234.81	211.15	191.15	65.9	63.91	59.75	272.87	200.68	5.57
47.0455	236.66	211.19	194.57	66.17	63.94	59.79	272.37	200.62	5.55
47.54617	238.08	211.19	197.23	66.44	63.92	59.82	271.84	200.57	5.57
48.046	238.83	211.22	199.33	66.75	63.95	59.88	271.64	200.52	5.59
48.54583	240.03	211.26	201.4	67.09	63.94	59.89	271.67	200.78	5.60
49.04567	238.28	211.36	203.18	67.48	63.96	59.95	272.58	200.68	5.59
49.5455	237.68	211.74	204.83	67.84	63.97	59.98	274.09	200.65	5.61
50.04533	237.76	212.05	206.34	68.24	63.98	60.02	276.59	200.64	5.61
50.54517	237.21	212.36	207.87	68.68	64	60.05	279.42	200.65	5.61
51.04583	236.93	213.01	209.09	69.14	64.01	60.07	282.68	200.65	5.62
51.54567	237.52	213.54	210.01	69.68	63.98	60.1	285.74	200.65	5.58
52.0445	237.62	213.86	210.75	70.21	64.02	60.12	288.56	200.68	5.58
52.54533	237.02	214.39	211.36	70.82	64.01	60.16	290.49	200.66	5.61
53.04517	237.86	214.82	211.82	71.5	64.03	60.21	291.73	200.59	5.61
53.545	237.76	214.74	212.13	72.23	64.02	60.25	292.34	200.72	5.60
54.04567	237.7	214.64	212.26	73	64.02	60.28	292.21	200.66	5.61
54.5455	238.2	214.59	212.3	73.78	64.03	60.32	291.84	200.59	5.63
55.04533	238.64	214.54	212.3	74.56	64.04	60.35	291.32	200.52	5.63
55.54517	237.93	214.37	212.26	75.39	64.04	60.39	290.81	200.48	5.58
56.044	238.04	214.25	212.24	76.22	64.05	60.43	290.52	200.43	5.56
56.54567	238.26	214.27	212.23	77.07	64.06	60.44	290.42	200.38	5.57
57.0455	237.91	214.35	212.29	77.92	64.06	60.5	290.89	200.35	5.60
57.54533	238.25	214.42	212.44	78.79	64.07	60.51	291.84	200.7	5.60
58.04517	237.88	214.73	212.62	79.69	64.07	60.55	293.43	200.61	5.60
58.54583	238.14	214.99	212.98	80.65	64.09	60.59	295.69	200.58	5.60
59.04483	237.91	215.32	213.38	81.63	64.1	60.6	298.08	200.58	5.62
59.5455	237.99	215.66	213.8	82.67	64.11	60.64	300.83	200.59	5.63
60.04533	237.78	215.97	214.22	83.78	64.11	60.67	303.04	200.6	5.59
60.54617	238.12	216.35	214.58	84.96	64.12	60.67	304.93	200.6	5.55
61.04417	238.86	216.7	214.85	86.22	64.14	60.7	306.29	200.59	5.56
61.54583	238.76	216.79	215.07	87.55	64.17	60.74	307.06	200.52	5.61
62.04567	238.77	216.89	215.19	88.88	64.17	60.77	307.39	200.49	5.61
62.54533	238.86	216.95	215.23	90.24	64.2	60.79	307.47	200.64	5.58
63.04617	239.15	216.97	215.2	91.64	64.22	60.81	307.28	200.5	5.60
63.54683	238.6	216.97	215.2	93.06	64.24	60.8	307.1	200.43	5.61
64.04583	238.23	216.96	215.19	94.48	64.29	60.84	307.25	200.42	5.62
64.5465	238.52	217.04	215.21	95.93	64.31	60.85	307.33	200.38	5.59
65.0455	237.92	217.11	215.32	97.4	64.34	60.87	308.13	200.33	5.56
65.54617	237.91	217.28	215.45	98.95	64.38	60.88	309.55	200.33	5.57

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
66.046	238.36	217.66	215.69	100.55	64.4	60.86	311.05	200.33	5.58
66.54483	237.13	217.75	215.98	102.18	64.48	60.89	313.01	200.36	5.61
67.0465	236.97	217.92	216.27	103.97	64.55	60.91	314.62	200.37	5.63
67.5455	236.89	218.32	216.57	105.8	64.57	60.92	316.28	200.44	5.60
68.04433	237.45	218.54	216.79	107.78	64.63	60.92	317.42	200.51	5.64
68.54517	237.61	218.69	216.95	109.83	64.69	60.93	318.27	200.5	5.65
69.04583	238.39	218.85	217.06	111.99	64.66	60.97	318.81	200.5	5.59
69.54567	237.84	218.84	217.14	114.3	64.91	60.99	319.16	200.49	5.56
70.04633	237.64	218.84	217.16	116.69	64.93	61	319	200.5	5.58
70.54533	238.63	218.81	217.13	119.16	65.01	61.02	318.89	200.46	5.61
71.04517	238.96	218.82	217.12	121.71	65.11	61.05	318.72	200.47	5.60
71.54583	238.86	218.89	217.12	124.37	65.29	61.05	318.8	200.54	5.61
72.04567	238.38	218.86	217.13	127.17	65.33	61.06	318.59	200.45	5.62
72.5455	238.3	218.89	217.11	130.18	65.47	61.08	318.7	200.45	5.63
73.04533	239.09	218.98	217.1	133.34	65.61	61.1	318.65	200.47	5.62
73.54517	238.27	219.02	217.11	136.75	65.72	61.11	318.74	200.5	5.57
74.04583	238.99	218.95	217.09	140.41	65.88	61.17	318.55	200.49	5.55
74.54383	239.3	218.9	217.04	144.22	66.06	61.18	318.16	199.26	5.58
75.0465	239.66	218.98	216.98	148.38	66.25	61.24	317.53	200.52	5.61
75.54533	240.22	218.9	216.89	152.8	66.46	61.24	317.26	200.5	5.60
76.04617	239.53	218.76	216.79	157.6	66.71	61.3	316.25	200.52	5.61
76.54501	238.8	218.65	216.67	162.78	66.89	61.29	315.19	200.48	5.62
77.04567	238.1	218.59	216.49	168.57	67.29	61.35	314.06	200.5	5.65
77.5455	239.56	218.31	216.26	175.21	67.78	61.32	312.33	200.62	5.60
78.04533	239.91	218.17	216	182.88	68.11	61.32	310.61	200.45	5.57
78.54517	239.1	218.08	215.76	189.24	68.6	61.35	309.21	200.41	5.58
79.04501	239.97	217.89	215.51	194.51	69.18	61.37	307.63	200.38	5.61
79.54483	239.92	217.68	215.26	199.28	69.8	61.38	305.97	200.29	5.61
80.04567	239.48	217.45	215.06	203.35	70.52	61.42	304.73	200.26	5.60
80.5445	238.73	217.37	214.86	206.38	71.3	61.43	303.48	200.53	5.60
81.04617	239.84	217.19	214.65	208.48	72.11	61.45	302.25	200.38	5.63
81.54501	240.42	217.54	214.46	210.04	73.02	61.49	301.23	200.35	5.62
82.04483	240.43	217.45	214.3	211.06	73.99	61.5	300.26	200.31	5.57
82.5465	239.23	217.08	214.16	211.68	75.02	61.52	299.14	200.31	5.57
83.0455	238.68	216.92	213.97	212.04	76.1	61.54	297.93	200.27	5.58
83.54617	238.14	216.54	213.74	212.19	77.27	61.59	296.49	199.86	5.61
84.04501	237.52	216.5	213.53	212.24	78.49	61.61	295.13	199.76	5.60
84.544	237.17	216.11	213.29	212.14	79.77	61.65	293.64	199.72	5.61
85.0465	237.08	215.96	213.08	212.02	81.14	61.69	292.08	199.69	5.62
85.54733	237.41	215.82	212.79	211.83	82.59	61.74	290.45	199.66	5.64
86.04533	237.9	215.48	212.53	211.6	84.09	61.8	288.85	199.64	5.62
86.54517	238.3	215.31	212.25	211.33	85.66	61.84	286.98	199.95	5.57
87.04501	237.46	215.15	211.95	211.11	87.27	61.9	285.34	199.81	5.56
87.54567	237.45	214.87	211.7	210.88	88.94	61.98	283.92	199.76	5.59

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.0455	238.06	214.48	211.45	210.65	90.64	62.04	282.52	199.73	5.62
88.54617	237.13	214.22	211.24	210.46	92.39	62.12	281.33	200.06	5.60
89.04517	238.12	213.97	211.03	210.23	94.13	62.2	280.37	199.86	5.61
89.54583	237.01	213.81	210.9	210.13	95.99	62.3	279.69	199.82	5.61
90.04666	237.2	213.94	210.77	210.02	97.96	62.4	279.16	199.82	5.65
90.5455	236.95	213.98	210.69	209.94	99.91	62.52	278.72	199.79	5.62
91.04533	236.95	214.15	210.62	209.87	101.97	62.66	278.34	199.82	5.56
91.54517	237.5	214.02	210.55	209.78	104.08	62.79	277.85	199.81	5.56
92.044	236.71	213.94	210.43	209.66	106.32	62.97	276.98	199.93	5.58
92.54483	237.83	213.89	210.26	209.52	108.63	63.14	275.9	199.84	5.60
93.04467	237.27	213.79	210.07	209.31	111.15	63.34	274.57	199.82	5.60
93.5445	238.32	213.52	209.84	209.07	113.76	63.57	273.05	199.44	5.61
94.04517	238.07	213.44	209.57	208.82	116.62	63.83	271.42	200.04	5.62
94.54501	237.65	213.26	209.25	208.5	119.65	64.09	269.6	200.49	5.64
95.04483	236.77	212.44	208.94	208.2	122.94	64.41	267.7	200.32	5.60
95.5455	236.87	211.88	208.62	207.92	126.42	64.76	265.95	200.27	5.57
96.04533	237.12	211.88	208.32	207.62	130.02	65.12	264.36	200.24	5.58
96.54517	236.75	211.94	208.02	207.32	133.78	65.52	262.66	200.2	5.61
97.04501	235.87	211.33	207.75	207.05	137.65	65.96	261.19	200.17	5.61
97.54483	236.24	211.37	207.47	206.74	141.7	66.44	259.68	200.25	5.61
98.04567	236.37	211.04	207.22	206.51	146.1	66.93	258.49	200.16	5.62
98.54533	235.89	211.15	207.01	206.31	150.6	67.46	257.49	200.16	5.63
99.04517	236.07	211.2	206.84	206.12	155.18	68.07	256.67	200.17	5.61
99.54501	235.7	210.92	206.66	205.96	159.86	68.73	255.95	200.18	5.56
100.0448	236.42	211.02	206.52	205.82	164.59	69.42	255.25	200.18	5.57
100.5457	236.08	210.84	206.29	205.56	170.24	70.18	253.73	200.49	5.59
101.0455	236.98	210.68	206.08	205.39	175.34	71.01	252.66	200.48	5.61
101.5453	235.82	210.65	205.85	205.16	180.3	71.95	251.36	200.46	5.59
102.045	236.63	210.46	205.59	204.89	184.88	72.97	249.89	200.43	5.62
102.5448	236.83	210.09	205.31	204.61	189.38	74.1	248.17	200.44	5.61
103.0465	236.23	209.57	204.92	204.18	193.55	75.41	245.81	200.5	5.63
103.5455	235.48	209.66	204.53	203.81	195.84	76.82	243.78	200.49	5.61
104.0453	235.59	209.11	204.12	203.4	197.78	78.3	241.56	200.4	5.57
104.5452	236.11	208.56	203.69	202.98	199.14	79.94	239.37	200.36	5.56
105.045	235.81	208.49	203.27	202.57	200.08	81.63	237.1	200.28	5.58
105.5465	236.15	208.26	202.64	201.87	200.71	83.45	233.54	200.52	5.60
106.0455	236.21	207.62	202.09	201.41	200.69	85.34	231.12	200.39	5.59
106.5443	235.16	207.07	201.65	200.98	200.54	87.34	228.95	200.23	5.59
107.0452	236.68	206.39	201.24	200.58	200.33	89.45	226.98	200.07	5.60
107.545	235.84	206.38	200.74	200.01	199.81	91.61	224.14	200.4	5.63
108.0448	234.9	206.22	200.3	199.65	199.76	93.85	222.46	200.26	5.61
108.5455	234.79	205.03	200.03	199.42	199.57	96.16	221.15	200.1	5.56
109.0453	235.64	204.91	199.78	199.19	199.39	98.44	220.08	199.94	5.56
109.5452	235.25	204.46	199.59	199	199.25	100.72	219.21	199.88	5.57

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.045	234.97	204.36	199.42	198.86	199.15	102.88	218.55	199.79	5.60
110.5448	234.84	203.93	199.22	198.56	198.75	104.91	217.08	200.25	5.59
111.0455	234.9	204.06	198.97	198.42	198.76	106.93	216.38	200.15	5.59
111.5453	235.37	203.38	198.89	198.35	198.73	108.94	216.08	200.16	5.61
112.0452	234.67	203.76	198.85	198.32	198.71	110.92	215.82	200.12	5.61
112.545	235.57	203.3	198.82	198.27	198.68	112.84	215.76	200.12	5.62
113.0448	236.42	203.71	198.81	198.27	198.68	114.68	215.72	200.08	5.57
113.5465	236.8	203.65	198.79	198.24	198.67	116.47	215.73	200.08	5.55
114.0453	235.28	203.9	198.78	198.26	198.69	118.18	215.61	200.08	5.56
114.5462	236.02	204.19	198.74	198.21	198.71	119.85	215.5	200.18	5.60
115.045	236.65	204.51	198.75	198.21	198.64	121.54	215.52	200.16	5.60
115.5458	234.93	203.5	198.75	198.23	198.75	123.21	215.49	200.17	5.59
116.0455	235.76	203.38	198.76	198.22	198.67	124.88	215.56	200.16	5.60
116.5453	235.62	203.52	198.76	198.24	198.67	126.6	215.58	200.13	5.62
117.0443	235.42	203.58	198.76	198.23	198.69	128.31	215.66	200.15	5.63
117.5442	234.3	203.28	198.78	198.25	198.68	130.03	215.67	200.16	5.58
118.0448	235.55	203.35	198.61	197.96	198.32	131.91	214.56	200.22	5.58
118.5465	234.93	204.12	198.48	197.95	198.39	134.21	214.28	200.21	5.57
119.0445	234.2	204.05	198.49	197.93	198.47	136.84	214.35	200.2	5.60
119.5453	235.7	203.86	198.49	197.93	198.38	139.36	214.25	200.11	5.61
120.045	235.24	203.32	198.47	197.92	198.37	141.73	214.25	200.07	5.61
120.5448	236.03	203.45	198.46	197.92	198.37	144.08	214.23	200.05	5.62
121.0457	235.57	203.46	198.44	197.93	198.37	146.44	214.17	200.03	5.62
121.5455	234.89	203.48	198.32	197.68	198	149.12	213.07	200.13	5.62
122.0443	234.54	202.86	198.17	197.61	198.07	152.8	212.74	200.11	5.57
122.5442	235.56	203.11	198.15	197.61	198.09	155.98	212.72	200.16	5.56
123.045	235.51	202.99	198.17	197.63	198.12	158.57	212.67	200.09	5.56
123.5447	235	203.19	198.15	197.62	198.1	160.76	212.72	200.04	5.60
124.0455	235.25	203.21	198.14	197.62	198.1	162.83	212.57	199.99	5.58
124.5453	236.15	202.98	198.12	197.6	198.09	164.76	212.58	199.96	5.59
125.0452	235.61	202.93	198.11	197.59	198	166.68	212.5	199.94	5.62
125.545	236.83	203.02	198.11	197.59	198.08	168.59	212.48	199.94	5.61
126.0457	236.12	203.2	197.95	197.33	197.7	173.57	211.37	199.95	5.61
126.5465	236.16	203.44	197.83	197.29	197.81	177.64	211.25	200.07	5.55
127.0453	234.39	203.74	197.85	197.33	197.87	179.83	211.31	200.11	5.55
127.5452	236.2	203.01	197.85	197.35	197.86	181.49	211.36	200.16	5.56
128.045	234.36	202.05	197.89	197.36	197.88	182.78	211.46	200.04	5.59
128.5448	236.08	202.53	197.88	197.38	197.86	184.04	211.44	199.97	5.59
129.0455	235.83	202.8	197.86	197.34	197.86	185.21	211.48	199.93	5.60
129.5453	235.73	202.86	197.88	197.36	197.86	186.32	211.41	199.68	5.60
130.0452	235.69	203.28	197.87	197.35	197.85	187.29	211.41	199.57	5.60
130.545	236.54	202.87	197.78	197.19	197.67	190.65	210.86	200.02	5.63
131.0457	235.46	202.53	197.75	197.25	197.78	191.75	211	200.23	5.58
131.5455	236.7	202.62	197.8	197.28	197.82	192.38	211.18	200.28	5.54

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.0453	236.13	203.16	197.82	197.32	197.84	192.92	211.34	200.3	5.54
132.5452	235.45	203.29	197.88	197.32	197.86	193.38	211.43	200.29	5.56
133.045	236.32	203.42	197.88	197.35	197.86	193.85	211.49	200.2	5.60
133.5448	236.25	203.01	197.9	197.36	197.88	194.37	211.6	200.15	5.59
134.0455	236.02	203.22	197.91	197.37	197.89	194.93	211.6	200.16	5.59
134.5453	235.21	202.83	197.91	197.39	197.89	195.31	211.64	200.17	5.59
135.0452	235.56	202.6	197.93	197.39	197.89	195.71	211.71	200.05	5.61
135.545	235.38	203.36	197.8	197.2	197.66	196.48	210.97	199.9	5.63
136.0458	236.01	203.25	197.75	197.21	197.75	196.88	210.95	200.11	5.58
136.5457	235.08	203.4	197.79	197.27	197.81	196.97	211.15	200.23	5.55
137.0455	235.21	202.36	197.81	197.29	197.79	197.02	211.21	200.24	5.57
137.5453	236.14	202.7	197.81	197.28	197.81	197.04	211.26	200.11	5.60
138.045	235.29	203.15	197.82	197.28	197.89	197.06	211.19	200.03	5.60
138.5448	234.03	202.9	197.82	197.28	197.77	197.07	211.19	199.86	5.60
139.0457	235.93	203.21	197.8	197.27	197.77	197.11	211.21	199.8	5.61
139.5455	235.18	202.8	197.81	197.27	197.79	197.11	211.22	200.05	5.62
140.0453	236.42	203.13	197.81	197.31	197.84	197.22	211.29	200.45	5.62
140.5452	235.96	202.74	197.76	197.17	197.65	197.01	210.81	200.15	5.57
141.045	235.32	202.54	197.74	197.22	197.78	197.2	210.88	200.44	5.55
141.5465	235.27	202.79	197.8	197.28	197.85	197.31	211.25	200.6	5.57
142.0455	236.61	202.96	197.85	197.33	197.89	197.32	211.41	200.52	5.60
142.5453	235.75	203.85	197.89	197.37	197.89	197.34	211.55	200.54	5.61
143.0452	236.74	203.75	197.89	197.36	197.89	197.32	211.64	200.48	5.60
143.545	235.2	203.63	197.91	197.38	197.9	197.34	211.7	200.3	5.60
144.0457	236.42	203.05	197.92	197.38	197.91	197.34	211.63	200.45	5.65
144.5455	236.69	203.77	197.9	197.38	197.9	197.33	211.66	200.37	5.62
145.0453	236.25	203.4	197.92	197.38	197.9	197.33	211.73	200.18	5.56
145.546	236.04	203.46	197.94	197.4	197.91	197.37	211.87	200.16	5.57
146.045	234.68	203.17	197.94	197.41	197.93	197.37	211.88	200.32	5.59
146.5438	235.39	202.91	197.86	197.25	197.69	197.14	211.19	199.89	5.61
147.0455	235.11	203.32	197.8	197.27	197.84	197.32	211.32	200.32	5.62
147.5445	235.15	203.41	197.86	197.34	197.97	197.38	211.64	200.42	5.60
148.0443	236.06	203.86	197.9	197.38	197.93	197.41	211.7	200.55	5.62
148.545	236.23	203.54	197.92	197.4	197.83	197.41	211.87	200.37	5.64
149.0448	237.25	202.74	197.94	197.4	197.92	197.38	211.96	200.28	5.59
149.5455	237.52	203.01	197.96	197.42	197.92	197.4	211.91	200.26	5.55
150.0453	235.88	203.85	197.94	197.42	197.93	197.39	211.84	200.27	5.56
150.5452	235.02	203.75	197.95	197.41	197.91	197.41	211.83	200.28	5.59
151.045	236.53	203.62	197.93	197.39	197.91	197.37	211.79	200.16	5.60
151.5448	235.72	202.89	197.93	197.39	197.91	197.39	211.77	200.3	5.60
152.0455	235.11	202.89	197.93	197.4	197.9	197.4	211.87	200.13	5.62
152.5453	235.76	203.79	197.94	197.38	197.9	197.4	211.76	200.21	5.62
153.0452	236.48	203.85	197.92	197.4	197.93	197.45	211.81	200.31	5.63
153.545	236.36	203.17	197.92	197.39	197.85	197.42	211.83	200.22	5.57

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.044	237.15	204.16	197.83	197.25	197.73	197.28	210.35	199.85	5.57
154.5457	236.09	203.35	197.82	197.28	197.82	197.35	211.34	200.22	5.57
155.0445	236.31	202.1	197.86	197.34	197.89	197.45	211.17	200.47	5.60
155.5443	235.17	202.94	197.9	197.38	197.95	197.5	211.62	200.57	5.60
156.045	235.94	203.25	197.91	197.4	197.95	197.74	211.87	200.53	5.60
156.5448	235.51	202.12	197.96	197.43	197.99	197.52	212.04	200.56	5.62
157.0447	234.61	202.39	197.98	197.44	197.99	197.51	212.02	200.42	5.64
157.5455	236.07	203.51	197.97	197.45	197.99	197.47	212.11	200.31	5.61
158.0453	235.84	204.06	197.98	197.46	197.99	197.46	212.2	200.23	5.57
158.5452	235.3	204.1	197.91	197.26	197.67	196.97	211.44	197.43	5.55
159.045	234.96	203.75	197.66	197.03	197.43	196.87	210.44	198.31	5.57
159.5447	235.99	203.41	197.63	197.11	197.7	197.29	210.57	200.06	5.60
160.0455	236.89	203.93	197.72	197.23	197.84	197.41	211.22	200.4	5.60
160.5453	236.63	203.16	197.84	197.34	197.92	197.45	211.65	200.49	5.60
161.0452	236.34	203.56	197.88	197.38	197.94	197.47	211.85	200.33	5.61
161.545	236.66	203.56	197.94	197.4	197.97	197.49	212.05	200.56	5.61
162.0457	236.45	203.31	197.96	197.44	197.98	197.47	212.14	200.35	5.63
162.5455	235.55	203.5	197.96	197.44	197.96	197.48	212.04	200.22	5.57
163.0453	235.29	203.67	197.96	197.43	197.96	197.48	211.89	200.11	5.56
163.5442	236.36	203.68	197.95	197.42	197.93	197.43	211.97	200.08	5.58
164.044	237.06	202.98	197.95	197.41	197.94	197.5	211.98	200.03	5.58
164.5448	236.08	203.38	197.95	197.4	197.83	197.42	212.1	200.02	5.60
165.0447	236.21	204.22	197.95	197.42	197.94	197.52	212	199.9	5.61
165.5453	236.66	203.45	197.94	197.4	197.92	197.4	211.98	200	5.62
166.0452	236.02	203.11	197.94	197.42	197.92	197.44	212.03	200.11	5.64
166.545	234.58	203.21	197.96	197.42	197.96	197.46	212.07	200.14	5.61
167.0448	235.68	202.99	197.94	197.44	197.94	197.46	212.07	200.08	5.57
167.5455	235.61	204.19	197.96	197.43	197.95	197.45	212.13	199.89	5.56
168.0453	236.45	203.78	197.97	197.41	197.93	197.39	212.05	199.63	5.60
168.5452	234.61	202.82	197.86	197.27	197.75	197.27	211.44	199.88	5.60
169.045	235.12	203.45	197.83	197.33	197.9	197.43	211.59	200.54	5.60
169.544	235.12	203.45	197.9	197.38	197.97	197.54	211.9	200.68	5.61
170.0455	236.59	203.33	197.94	197.44	198.03	197.58	212.13	200.81	5.64
170.5445	235.91	204.17	197.99	197.48	198.12	197.6	212.46	200.89	5.64
171.0462	235.21	203.91	198.03	197.51	198.05	197.58	212.51	200.8	5.58
171.5442	236.58	204.71	198.04	197.52	198.04	197.57	212.41	200.58	5.57
172.0448	236.17	203.7	198.04	197.48	198	197.5	212.41	200.17	5.58
172.5465	236.87	203.95	198	197.47	197.86	197.47	212.2	199.95	5.61
173.0445	237.21	203.9	197.99	197.43	197.95	197.45	212.25	200.04	5.60
173.5453	235.66	204.26	197.97	197.44	197.97	197.47	212.06	200.03	5.61
174.045	236.79	204.2	197.94	197.4	197.94	197.46	212.02	199.96	5.62
174.5448	235.87	204.03	197.94	197.4	197.92	197.46	212.03	200.06	5.62
175.0457	235.89	204.07	197.94	197.39	197.76	197.23	212.03	196.56	5.59
175.5455	236.79	203.64	197.8	197.25	197.78	197.32	211.32	199.96	5.56

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.0453	236.69	203.52	197.82	197.32	197.91	197.46	211.68	200.47	5.55
176.5452	235.18	203.8	197.91	197.41	198.02	197.57	211.98	200.88	5.58
177.045	236.3	204.07	197.99	197.47	198.06	197.63	212.23	200.94	5.59
177.5457	236.12	203.88	198.03	197.51	198.1	197.65	212.43	200.94	5.60
178.0455	235.87	203.72	198.03	197.52	198.1	197.65	212.5	200.87	5.62
178.5453	234.98	203.56	198.05	197.55	198.1	197.63	212.68	200.73	5.62
179.0442	235	203.87	198.09	197.53	198.07	197.58	212.55	200.36	5.64
179.545	236.41	204.01	198.02	197.5	198.03	197.53	212.49	200.19	5.61
180.0457	236.83	204.61	198	197.45	197.95	197.39	212.3	195.63	5.56
180.5447	236.87	203.73	197.81	197.18	197.54	196.98	211.23	197.41	5.57
181.0443	235.08	204.04	197.61	196.99	197.54	196.95	210.41	198.34	5.60
181.5452	236.57	203.92	197.58	197.08	197.67	197.27	210.56	200	5.62
182.045	236.93	202.9	197.71	197.22	197.85	197.44	211.26	200.37	5.61
182.5448	236.72	203.06	197.82	197.32	197.91	197.49	211.61	200.54	5.63
183.0455	236	202.64	197.91	197.41	198.02	197.59	211.95	200.7	5.65
183.5453	235.4	202.84	197.95	197.45	198.05	197.61	212.16	200.7	5.62
184.0452	235.45	203.89	197.99	197.5	198.06	197.59	212.26	200.73	5.59
184.545	237.05	203.74	197.99	197.49	198.04	197.59	212.31	200.58	5.60
185.0448	236.8	203.34	197.99	197.47	197.94	197.54	212.28	200.25	5.62
185.5455	236.03	203.72	197.98	197.46	197.98	197.51	212.27	200.01	5.61
186.0453	235.93	202.86	197.94	197.4	197.94	197.46	211.97	199.78	5.63
186.5443	237.18	203.94	197.91	197.39	197.94	197.46	211.95	199.97	5.65
187.0442	236.69	203.1	197.93	197.41	197.98	197.5	211.98	199.95	5.65
187.5448	235	203.91	197.95	197.39	197.97	197.48	212.04	200.03	5.59
188.0455	235.94	203.34	197.95	197.4	197.95	197.43	212.07	199.46	5.59
188.5453	236.24	203.81	197.88	197.29	197.67	197.09	211.59	196.72	5.61
189.0443	236.84	204.01	197.67	197.1	197.58	197.06	210.7	198.21	5.62
189.545	236.95	203.35	197.62	197.04	197.53	197.03	210.59	198.02	5.60
190.0448	236.14	202.62	197.58	197.07	197.64	197.17	210.53	198.98	5.63
190.5447	235.95	203.32	197.66	197.12	197.82	197.34	210.9	199.81	5.65
191.0455	236.45	203.59	197.73	197.25	197.86	197.45	211.16	200.03	5.63
191.5453	236.46	203.84	197.81	197.29	197.9	197.48	211.52	200.27	5.59
192.045	235.22	203.99	197.86	197.36	197.95	197.56	211.75	200.32	5.56
192.5448	236.32	204.35	197.88	197.38	197.96	197.53	211.78	200.2	5.63
193.0457	235.6	203.74	197.89	197.39	197.98	197.55	211.84	200.23	5.60
193.5455	235.71	203.28	197.91	197.41	198	197.53	211.9	200.2	5.62
194.0453	236.7	203.25	197.93	197.41	197.98	197.53	211.92	200.21	5.65
194.5452	237.37	203.52	197.91	197.39	197.97	197.52	212.03	200.16	5.65
195.044	236.33	203.02	197.93	197.39	197.97	197.5	211.97	200	5.59
195.5465	235.4	203.81	197.9	197.38	197.92	197.45	211.84	199.82	5.57
196.0463	236.53	204.69	197.9	197.36	197.94	197.45	211.78	199.8	5.60
196.5443	235.14	204.12	197.89	197.38	197.94	197.48	211.81	200.01	5.61
197.0442	236.36	204.25	197.89	197.37	197.96	197.51	211.86	200	5.59
197.545	236.52	204.41	197.91	197.39	197.96	197.5	212.05	200.03	5.60

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.0448	237.22	204.56	197.93	197.41	197.97	197.52	212	200.15	5.61
198.5455	235.71	204.43	197.9	197.34	197.84	197.36	211.74	199.41	5.63
199.0453	236.71	204.29	197.85	197.31	197.85	197.38	211.65	199.58	5.59
199.5452	236.36	204.01	197.83	197.33	197.89	197.42	211.6	199.71	5.57
200.045	236.06	203.53	197.84	197.33	197.96	197.44	211.62	199.78	5.56
200.5457	236.7	204.12	197.86	197.34	197.91	197.45	211.73	199.89	5.61
201.0455	234.54	203.43	197.88	197.36	197.91	197.48	211.83	199.95	5.59
201.5453	236.05	203.88	197.86	197.38	197.93	197.49	211.78	199.93	5.61
202.0452	236.43	203.33	197.87	197.35	197.92	197.47	211.86	199.89	5.60
202.5458	236.82	203.53	197.87	197.37	197.92	197.47	211.79	199.89	5.63
203.0457	237.27	203.33	197.89	197.35	197.92	197.48	211.94	199.9	5.61
203.5455	236.34	203.5	197.87	197.37	197.93	197.5	211.78	199.92	5.58
204.0453	236.13	203.96	197.86	197.36	197.93	197.48	211.77	199.94	5.58
204.5452	237.12	203.38	197.86	197.36	197.93	197.49	211.78	200.01	5.60
205.045	236.6	203.16	197.88	197.38	197.97	197.56	211.87	200.56	5.60
205.5448	237.18	202.74	197.92	197.42	198.05	197.64	212.11	200.91	5.61
206.0455	236.88	203.37	197.98	197.49	198.1	197.71	212.27	201.17	5.60
206.5463	236.51	203.91	198.02	197.53	198.18	197.77	212.51	201.4	5.61
207.0452	237.22	202.89	198.07	197.59	198.22	197.82	212.79	201.62	5.62
207.5442	236.4	203.29	198.11	197.65	198.26	197.86	213.03	201.83	5.57
208.0448	237.18	202.93	198.17	197.7	198.31	197.92	213.32	201.94	5.56
208.5457	236.12	203.19	198.17	197.58	197.92	197.35	213	199.27	5.56
209.0445	236.02	204.34	197.98	197.43	197.98	197.53	212.24	200.34	5.60
209.5453	236.01	204.75	197.95	197.43	197.95	197.5	212.15	199.66	5.59
210.045	237.05	205.06	197.92	197.36	197.86	197.36	211.98	199.05	5.59
210.5448	237.28	204.65	197.83	197.27	197.79	197.31	211.7	198.92	5.59
211.0457	235.66	203.88	197.78	197.24	197.78	197.31	211.5	199.1	5.61
211.5455	235.79	203.69	197.76	197.23	197.75	197.3	211.43	199.04	5.62
212.0453	236.61	203.84	197.75	197.23	197.78	197.34	211.42	199.35	5.58
212.5452	236.35	204.98	197.75	197.23	197.82	197.39	211.51	199.45	5.56
213.045	235.71	204.18	197.79	197.27	197.84	197.41	211.45	199.52	5.56
213.5457	236.64	203.81	197.78	197.26	197.83	197.42	211.39	199.5	5.59
214.0455	235.94	204.05	197.76	197.26	197.83	197.4	211.45	199.46	5.60
214.5443	236.99	203.64	197.75	197.25	197.85	197.39	211.32	199.51	5.58
215.0442	237.65	204.18	197.75	197.25	197.86	197.43	211.44	199.8	5.60
215.545	237.73	202.84	197.74	197.18	197.65	197.16	211.03	199.25	5.62
216.0448	237.48	202.89	197.67	197.15	197.67	197.33	211	200.07	5.64
216.5455	237.72	203.02	197.71	197.24	197.87	197.49	211.33	200.29	5.59
217.0453	236.49	202.44	197.78	197.32	197.96	197.6	211.67	200.68	5.56
217.5452	236.65	203.03	197.87	197.39	198.02	197.66	211.9	200.87	5.57
218.045	236.12	203.23	197.91	197.45	198.08	197.7	212.1	201.08	5.59
218.5448	235.96	204.06	197.95	197.49	198.13	197.76	212.37	201.49	5.59
219.0455	236.41	203.58	198.03	197.56	198.21	197.85	212.62	201.74	5.59

Table B2. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
219.5453	236.14	203.49	198.09	197.62	198.28	197.92	212.97	202.17	5.59
220.0452	235.9	203.69	198.16	197.7	198.34	197.98	213.31	202.56	5.63
220.544	236.42	202.89	198.25	197.79	198.43	198.06	213.72	202.91	5.63
221.0438	236.37	203.77	198.33	197.88	198.51	198.17	214.13	203.32	5.58
221.5455	236.93	203.9	198.4	197.94	198.6	198.24	214.53	203.7	5.57
222.0445	237.09	204.49	198.48	198.03	198.68	198.32	214.96	204.13	5.58
222.5443	236.31	203.33	198.59	198.14	198.79	198.43	215.43	204.47	5.60
223.045	234.79	203.87	198.66	198.22	198.86	198.47	215.89	204.78	5.59
223.5448	236.67	203.11	198.7	198.09	198.35	197.74	215.46	198.57	5.58
224.0455	235.87	203.67	198.24	197.56	197.86	197.24	213.15	197.95	5.61
224.5453	236.12	204.83	197.91	197.28	197.69	197.19	211.89	198.5	5.64
225.0452	237.01	206.18	197.78	197.26	197.87	197.44	211.71	200.42	5.62
225.545	236.35	204.86	197.88	197.41	198.07	197.68	212.28	201.29	5.57
226.0448	237.15	204	198.02	197.56	198.2	197.84	212.88	201.91	5.57
226.5457	236.71	204.09	198.13	197.67	198.33	197.95	213.33	202.34	5.59
227.0455	237.56	204.47	198.23	197.78	198.42	198.06	213.64	202.77	5.61
227.5452	237.69	203.15	198.28	197.83	198.5	198.16	214.04	203.2	5.61
228.0442	235.86	203.1	198.38	197.91	198.59	198.23	214.32	203.63	5.61
228.544	236.38	204.16	198.42	197.97	198.67	198.29	214.54	203.96	5.65
229.0457	237.11	204.54	198.49	198.04	198.72	198.35	214.68	204.24	5.65
229.5445	237.77	203.74	198.53	198.06	198.69	198.28	214.87	202.39	5.58
230.0453	236.61	203.53	198.41	197.85	198.28	197.73	214	199.28	5.57
230.546	236.95	204.07	198.11	197.53	197.98	197.46	212.67	199.81	5.59
231.5457	237.1	204.33	197.9	197.36	197.94	197.47	211.6	199.74	5.61
232.0455	235.71	204.8	197.85	197.33	197.92	197.45	211.81	199.43	5.62
232.5453	236.05	204.35	197.83	197.31	197.89	197.44	211.77	199.59	5.62
233.0452	236.61	204.48	197.84	197.32	197.89	197.46	211.78	199.6	5.62
233.545	235.72	205	197.8	197.32	198	197.46	211.77	199.57	5.59
234.0457	236.64	205.34	197.82	197.32	197.81	197.47	211.68	199.69	5.55
234.5455	236.55	205.17	197.83	197.31	197.92	197.47	211.74	199.63	5.58
235.0453	236.57	205.3	197.83	197.31	197.89	197.47	211.81	199.62	5.61
235.5442	236.07	205.18	197.82	197.32	197.91	197.46	211.4	199.46	5.61
236.045	236.61	203.94	197.78	197.3	197.89	197.45	211.41	199.62	5.60
236.5448	236.28	204.36	197.79	197.29	197.86	197.47	211.54	199.52	5.60
237.0447	237.09	204.38	197.77	197.27	197.87	197.45	211.39	199.59	5.63
237.5453	236.61	205.08	197.78	197.28	197.87	197.46	211.47	199.45	5.59
238.0452	237.35	205.03	197.76	197.26	197.94	197.43	211	199.56	5.56
238.545	237.37	204.57	197.75	197.25	197.84	197.43	211.31	199.54	5.56
239.0448	237.14	204.43	197.75	197.29	197.9	197.48	211.38	199.94	5.59
239.5455	237.39	203.47	197.77	197.33	197.94	197.58	211.58	200.14	5.59
240.0453	236.32	203.6	197.81	197.33	197.96	197.54	211.64	199.89	5.58

Table B3-Temperature and production data for run 3

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
4.93E-02	242.48	66.26	62	63.91	62.19	54.89	264.05	204.59	5.59
0.5455	242.41	177.23	67.41	63.93	62.02	54.93	206.45	201.62	5.60
1.044333	243.9	192.05	65.92	63.97	62.14	54.91	206.22	201.34	5.62
1.544167	246.02	194	64.63	63.99	62.14	54.93	206.13	201.28	5.63
2.045	246.72	193.92	63.93	63.97	62.25	54.93	206.12	201.26	5.59
2.544833	246.66	193.59	63.53	63.99	62.17	54.93	206.13	201.28	5.54
3.0455	246.02	193.28	63.29	64.01	62.19	54.93	205.93	201.1	5.55
3.545333	245.46	193.28	63.12	64.03	62.19	54.98	204.41	199.61	5.57
4.045167	244.69	192.76	62.99	64.03	62.19	54.95	206.31	201.48	5.62
4.545	243.9	192.9	62.91	64.03	62.32	54.98	206.28	201.46	5.60
5.044833	242.99	193.17	62.85	64.05	62.23	54.98	206.25	201.43	5.61
5.5455	241.95	193.64	62.8	64.07	62.25	55	206.08	201.27	5.62
6.045333	241.12	193.89	62.78	64.08	62.27	55	206.22	201.38	5.65
6.545166	240.26	194.41	62.76	64.1	62.27	55.02	206.15	201.32	5.60
7.044167	239.03	194.71	62.76	64.12	62.21	55.04	206.3	201.46	5.58
7.544833	238.58	194.95	62.76	64.14	62.29	55.06	206.25	201.41	5.57
8.044666	237.83	195.02	62.78	64.12	62.31	55.04	206.12	201.28	5.59
8.545333	236.98	195.14	62.8	64.16	62.33	55.06	206	201.17	5.61
9.045167	236.21	195.22	62.82	64.16	62.34	55.08	206.28	201.43	5.61
9.545	235.64	195.11	62.86	64.18	62.34	55.08	206.05	201.2	5.62
10.04483	234.57	195.27	62.86	64.16	62.36	55.08	205.99	201.14	5.64
10.54567	233.99	195.36	62.89	64.18	62.25	55.12	206.15	201.3	5.64
11.0455	233.78	195.6	62.95	64.22	62.37	55.1	205.96	201.11	5.59
11.54533	233.56	195.72	62.99	64.18	62.37	55.1	205.98	201.08	5.56
12.045	232.53	195.7	63.1	64.22	62.4	55.12	205.96	201.1	5.58
12.54483	232.4	195.67	63.16	64.22	62.39	55.1	205.96	201.1	5.60
13.0465	232.13	195.88	63.24	64.24	62.42	55.14	205.93	201.1	5.60
13.5455	231.58	196.21	63.33	64.24	62.43	55.16	204.06	199.21	5.60
14.04433	232.6	196.35	63.43	64.26	62.43	55.18	206.56	201.68	5.62
14.546	233.39	197	63.54	64.22	62.6	55.16	206.37	201.4	5.64
15.044	234.93	197.62	63.73	64.19	62.48	55.18	206.38	201.38	5.63
15.54467	235.47	197.86	65	64.21	62.47	55.18	204.36	199.41	5.57
16.04633	236.09	198.04	66.53	64.21	62.47	55.16	204.58	199.51	5.55
16.54533	236.29	198.43	66.83	64.21	62.47	55.18	204.59	199.51	5.56
17.04517	236.52	198.7	67.19	64.23	62.49	55.2	206	201.08	5.60
17.545	236.38	198.74	69.81	64.26	62.47	55.2	204.36	199.43	5.59
18.04567	236.4	198.7	70.93	64.25	62.47	55.19	204.55	199.5	5.59
18.5455	236.49	198.67	70.31	64.27	62.41	55.21	204.55	199.53	5.59
19.04533	236.74	198.79	70.23	64.25	62.49	55.25	204.71	199.57	5.61
19.54517	236.83	198.67	70.61	64.27	62.49	55.21	205.87	200.99	5.63
20.044	236.92	198.45	71.01	64.29	62.47	55.21	206.19	201.16	5.61
20.54383	236.67	198.69	72.66	64.31	62.49	55.25	206.13	201.09	5.56
21.0455	236.55	198.72	75.97	64.31	62.61	55.25	205.58	200.01	5.55
21.5445	236.21	198.51	84.81	64.33	62.49	55.23	204.75	199.66	5.57

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
22.04517	236.16	198.58	85.99	64.35	62.49	55.18	204.93	199.98	5.60
22.545	236.12	198.8	89.01	64.37	62.48	55.23	205.71	200.54	5.59
23.04483	235.85	198.98	100.37	64.39	62.5	55.25	205.87	200.51	5.58
23.5455	235.55	198.91	110.57	64.39	62.44	55.25	205.7	200.5	5.61
24.04533	234.78	198.78	120.28	64.41	62.42	55.24	205.69	200.48	5.62
24.54617	234.75	198.89	130.32	64.45	62.52	55.27	205.79	200.49	5.64
25.045	234.62	199.09	142.83	64.45	62.42	55.22	205.96	200.49	5.58
25.54483	234.44	199.18	151.65	64.43	62.43	55.18	205.87	200.46	5.57
26.04567	233.37	199.31	157.76	64.41	62.45	55.18	205.99	200.51	5.56
26.54533	233.66	199.38	163.23	64.4	62.48	55.22	205.98	200.48	5.60
27.04433	233.77	199.4	167.38	64.38	62.48	55.18	206.12	200.48	5.61
27.54417	233.69	199.38	171.14	64.4	62.51	55.18	206.13	200.47	5.60
28.04483	234.05	199.59	174.65	64.42	62.51	55.2	206.28	200.47	5.61
28.54467	235.31	199.77	177.15	64.4	62.47	55.17	206.24	200.46	5.63
29.0455	236.35	200.06	178.94	64.42	62.51	55.17	206.19	200.45	5.65
29.54533	236.96	200.03	180.09	64.44	62.53	55.13	206.16	200.44	5.60
30.045	237.59	200.12	181.03	64.44	62.53	55.17	206.08	200.42	5.57
30.54483	237.97	199.87	181.86	64.44	62.53	55.12	206.09	200.42	5.56
31.04567	237.86	200.01	182.63	64.5	62.55	55.14	206.09	200.39	5.59
31.5455	238.09	200.12	183.33	64.5	62.66	55.14	206.04	200.39	5.60
32.04533	238.4	199.77	183.8	64.56	62.55	55.14	206.17	200.41	5.59
32.54417	238.36	199.71	184.37	64.58	62.54	55.12	205.96	200.36	5.60
33.044	238.37	199.91	184.8	64.65	62.56	55.16	206.01	200.35	5.60
33.54467	238.22	199.46	184.99	64.71	62.52	55.14	206.13	200.35	5.66
34.0455	238.06	199.32	185.65	64.81	62.54	55.16	206.1	200.34	5.61
34.54533	237.87	199.32	186.08	64.98	62.54	55.18	206.11	200.35	5.56
35.04517	237.85	199.95	186.94	65.21	62.56	55.2	206.14	200.33	5.58
35.545	237.8	199.75	187.32	65.47	62.58	55.24	206.18	200.33	5.62
36.04567	237.53	199.54	187.84	65.83	62.58	55.22	206.21	200.34	5.63
36.5455	237.37	199.27	188.11	66.34	62.6	55.3	206.19	200.33	5.60
37.04533	237.19	199.56	188.24	66.97	62.57	55.25	206.35	200.35	5.60
37.54417	236.87	199.45	188.6	67.86	62.58	55.25	206.37	200.34	5.62
38.044	236.8	199.51	188.83	68.99	62.62	55.29	206.44	200.34	5.63
38.54483	236.73	199.82	189.26	70.48	62.62	55.27	206.56	200.36	5.59
39.0455	236.59	199.74	189.68	72.38	62.76	55.29	206.59	200.36	5.57
39.54533	236.5	199.53	189.53	74.4	62.68	55.29	206.61	200.35	5.57
40.04517	236.34	199.75	189.32	76.54	62.76	55.31	206.65	200.35	5.59
40.545	235.71	199.8	189.34	78.81	62.84	55.33	206.79	200.37	5.59
41.04483	236.13	199.64	189.4	81.19	62.92	55.33	206.69	200.34	5.58
41.5455	236.29	200.23	189.93	83.46	62.97	55.33	206.6	200.33	5.59
42.04533	235.95	200.09	190.31	85.98	62.97	55.31	206.63	200.33	5.60
42.54517	235.92	199.76	190.87	88.5	63.07	55.32	206.52	200.31	5.63
43.04417	236.26	199.2	191.23	90.85	63.11	55.33	206.54	200.32	5.60
43.54483	235.95	199.58	191.61	93.59	63.17	55.32	206.46	200.31	5.57

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
44.0465	236.12	199.42	191.9	96.26	63.21	55.3	206.54	200.29	5.57
44.5445	236.24	199.62	192.29	99.31	63.28	55.3	206.41	200.27	5.56
45.04433	236.14	199.26	192.76	102.38	63.31	55.3	206.36	200.28	5.60
45.545	235.28	199.32	193.15	105.31	63.37	55.29	206.32	200.25	5.60
46.04483	235.89	199.57	193.57	108.48	63.4	55.29	206.41	200.26	5.59
46.54567	236	200.11	194.03	112.76	63.42	55.27	206.49	200.24	5.59
47.0455	235.21	199.98	194.47	117.63	63.48	55.29	206.53	200.28	5.60
47.54533	235.41	199.55	194.79	123.19	63.52	55.29	206.49	200.25	5.62
48.045	235.37	199.73	195.11	129.57	63.56	55.27	206.55	200.26	5.60
48.544	235.41	200.15	195.42	136.68	63.58	55.28	206.54	200.25	5.56
49.04567	234.55	199.52	195.65	144.26	63.64	55.26	206.58	200.26	5.56
49.5445	234.59	199.92	195.83	152.85	63.66	55.26	206.71	200.25	5.55
50.04433	234.7	199.83	195.98	161.76	63.68	55.26	206.71	200.26	5.59
50.54517	234.67	199.67	196.12	169.61	63.72	55.26	206.82	200.25	5.59
51.045	234.13	199.42	196.27	177.17	63.78	55.28	206.97	200.27	5.59
51.54567	233.61	200.03	196.38	183	63.85	55.32	207.08	200.27	5.59
52.0455	233.79	199.85	196.47	187.22	63.91	55.44	207.21	200.25	5.61
52.54533	233.29	199.82	196.58	191.17	63.97	55.57	207.32	200.3	5.63
53.04517	235.05	199.95	196.61	193.17	64.05	55.71	207.38	200.18	5.60
53.545	236.43	200.07	196.69	194.52	64.13	55.88	207.39	200.18	5.56
54.04567	237.74	200.59	196.73	195.27	64.22	56.02	207.37	200.18	5.56
54.5455	238.82	200.43	196.76	195.69	64.3	56.13	207.35	200.16	5.57
55.04433	239.55	200.58	196.78	196.01	64.39	56.27	207.45	200.17	5.60
55.54517	239.5	200.9	196.84	196.26	64.49	56.38	207.52	200.15	5.60
56.045	239.7	200.29	196.84	196.41	64.59	56.51	207.54	200.13	5.60
56.54483	239.2	200.26	196.86	196.48	64.68	56.61	207.59	200.15	5.60
57.0455	239.74	199.98	196.86	196.52	64.82	56.75	207.41	200.15	5.62
57.54533	239.74	200.17	196.84	196.52	64.91	56.84	207.15	200.12	5.63
58.04617	239.81	199.92	196.81	196.54	65.05	56.94	207.13	200.08	5.58
58.545	239.63	200.36	196.85	196.58	65.18	57.04	207.34	200.12	5.55
59.04483	239.58	200.3	196.87	196.61	65.35	57.17	207.39	200.12	5.54
59.5455	239.47	200.54	196.88	196.65	65.56	57.31	207.45	200.11	5.57
60.04533	239.1	200.82	196.9	196.67	65.73	57.4	207.42	200.1	5.61
60.54517	239.26	200.2	196.92	196.69	65.92	57.52	207.49	200.1	5.59
61.04417	238.78	200.4	196.94	196.71	66.09	57.61	207.61	200.11	5.60
61.54483	238.6	201.22	196.82	196.55	66.38	57.77	206.65	201.01	5.61
62.04467	238.89	200.74	196.86	196.7	66.57	57.83	207.35	200.95	5.66
62.54533	239.09	200.67	197.06	196.86	66.8	57.92	208.13	200.99	5.61
63.04517	238.57	201.8	197.15	196.95	67.03	57.98	208.42	200.95	5.54
63.545	237.82	201.28	197.18	196.97	67.33	58.06	208.51	200.91	5.53
64.04483	238.13	200.84	197.2	196.99	67.65	58.15	208.58	200.9	5.54
64.54567	238.42	200.71	197.19	196.99	68.01	58.23	208.62	200.87	5.57
65.0455	238.22	201.02	197.19	196.99	68.45	58.33	208.68	200.87	5.60
65.54533	237.61	200.59	196.96	196.72	68.98	58.44	207.34	201.01	5.63

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
66.04417	238.06	200.32	197.01	196.85	69.47	58.5	207.94	200.98	5.63
66.544	237.72	200.41	197.12	196.96	70	58.58	208.5	201.02	5.64
67.04567	237.69	200.36	197.19	197	70.79	58.66	208.57	200.94	5.64
67.5445	238.19	200.67	197.21	197.02	71.77	58.73	208.72	200.91	5.59
68.04533	237.78	200.4	197.23	197.05	73.22	58.77	208.76	200.9	5.58
68.54517	238.07	200.6	197.23	197.05	74.92	58.87	208.75	200.89	5.61
69.04501	238.52	201.01	197.23	197.04	76.81	58.93	208.81	200.88	5.60
69.54567	238.5	201.41	197.24	197	79.16	59.03	208.39	200.92	5.59
70.0455	238.66	200.8	197.02	196.81	82.08	59.12	207.66	200.98	5.60
70.54533	238.72	200.75	197.04	196.86	83.36	59.18	207.98	200.95	5.62
71.04417	237.97	201	197.13	196.96	85.11	59.24	208.37	200.97	5.64
71.544	238.51	200.61	197.17	196.99	87.75	59.3	208.51	200.93	5.62
72.04567	238.49	200.95	197.19	197.01	91.23	59.37	208.56	200.92	5.57
72.54467	238.6	200.43	197.19	197.01	95.48	59.45	208.57	200.9	5.56
73.04533	238.47	200.95	197.19	197.01	100.45	59.51	208.6	200.88	5.59
73.54517	238.4	200.79	197.21	197.01	106.29	59.6	208.66	200.86	5.60
74.04501	238.41	200.08	197.19	196.98	115.1	59.7	208.13	197.35	5.58
74.54483	238.05	199.72	197	196.8	120.3	59.78	207.51	200.93	5.60
75.0455	238.43	200.15	197.07	196.89	120.06	59.84	208.1	200.94	5.59
75.54533	238.55	200.87	197.18	197.02	126.33	59.88	208.6	200.96	5.63
76.04517	238.63	201.36	197.2	197	142.96	59.97	208.43	199.45	5.61
76.54417	238.34	201.52	197.15	196.93	154.99	60.05	208.21	200.3	5.56
77.04483	238.49	201.36	197.13	196.95	161.49	60.13	208.39	200.29	5.55
77.5455	238.11	201.22	197.19	196.99	169.24	60.2	208.52	200.31	5.56
78.0445	238.24	201.15	197.2	197.03	177.03	60.32	208.57	198.05	5.59
78.54517	237.7	200.73	196.99	196.78	178.52	60.4	207.52	200.88	5.60
79.04501	238.35	201.11	197.07	196.9	175.63	60.44	208.17	200.87	5.59
79.54483	238.53	201.42	197.21	197.07	180.41	60.49	208.86	200.91	5.61
80.04567	238.49	201.4	197.28	197.12	187.96	60.55	209.12	200.88	5.64
80.54533	236.99	201.8	197.34	197.14	191.89	60.65	209.24	200.88	5.63
81.04517	237.9	202.32	197.34	197.16	193.61	60.74	209.17	200.83	5.59
81.54417	238.41	201.39	197.34	197.16	194.85	60.84	209.21	200.81	5.56
82.044	238.45	201.14	197.34	197.14	195.73	60.92	209.18	200.79	5.57
82.54567	238.39	200.67	197.32	197.15	196.32	61.05	209.14	200.78	5.56
83.0445	238.39	200.83	197.09	196.89	196.91	61.18	207.93	200.9	5.60
83.54533	238.57	201.59	197.15	196.98	196.99	61.24	208.41	200.91	5.58
84.04501	238.38	201.5	197.26	197.08	197.15	61.36	208.84	200.92	5.59
84.54483	238.54	201.57	197.33	197.15	197.36	61.47	209.17	200.91	5.60
85.04567	238.5	201.22	197.37	197.2	197.6	61.61	209.27	200.87	5.61
85.5455	237.52	200.7	197.37	197.19	197.64	61.8	209.34	200.86	5.63
86.04533	238.18	200.32	197.4	197.21	197.71	62.01	209.44	200.84	5.57
86.54517	238.13	201.43	197.4	197.22	197.76	62.25	209.51	200.84	5.56
87.044	237.4	201.2	197.42	197.23	197.82	62.5	209.54	200.83	5.57
87.54567	237.85	201.13	197.21	196.98	197.6	62.88	208.31	200.91	5.61

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.0455	238.33	201.54	197.19	196.98	197.69	63.07	208.53	200.87	5.61
88.54433	238.37	201.2	197.28	197.12	197.82	63.28	209.14	200.87	5.60
89.046	238.66	201.96	197.37	197.19	197.89	63.56	209.4	200.87	5.61
89.54501	238.32	201.49	197.43	197.23	197.93	63.88	209.58	200.86	5.63
90.04483	238.35	201.53	197.45	197.25	197.95	64.28	209.64	200.86	5.62
90.5455	238.73	201.37	197.45	197.27	197.98	64.68	209.7	200.86	5.58
91.04533	238.71	201.89	197.47	197.27	198	65.12	209.76	200.86	5.58
91.54517	238.52	202.18	197.47	197.29	198.02	65.61	209.85	200.85	5.59
92.04501	238.13	202.12	197.49	197.31	197.95	66.14	209.88	200.84	5.63
92.54383	238.43	201.5	197.27	197.06	197.81	66.97	208.67	200.9	5.62
93.0455	238.31	201.8	197.27	197.09	197.88	67.46	209.14	200.85	5.59
93.54533	238.7	201.12	197.36	197.2	198.01	67.99	209.49	200.89	5.60
94.04433	238.54	201.11	197.47	197.27	198.1	68.75	209.85	200.91	5.62
94.54501	238.86	201.56	197.51	197.33	198.14	69.73	209.99	200.9	5.61
95.04483	239.03	202.04	197.53	197.33	198.14	70.86	209.99	200.87	5.56
95.54467	238.94	201.45	197.53	197.35	198.16	72.12	209.99	200.85	5.56
96.04533	238.98	201.25	197.51	197.32	198.19	73.48	209.86	200.84	5.59
96.54517	238.22	201.38	197.3	197.03	197.76	75.58	208.25	200.79	5.62
97.046	238.67	201.29	197.14	196.96	197.78	77.18	208.39	200.72	5.61
97.54583	238.48	200.61	197.21	197.05	197.89	78.63	208.76	200.74	5.60
98.04567	238.82	200.56	197.28	197.1	197.95	80.59	209.09	200.74	5.62
98.54533	238.66	201.06	197.34	197.16	198.02	83.07	209.2	200.73	5.64
99.04617	238.85	201.81	197.32	197.16	197.98	85.89	209.09	200.72	5.61
99.54501	238.48	202.19	197.32	197.13	197.97	89.16	209.01	200.69	5.57
100.044	237.91	202.09	197.29	197.11	197.91	92.92	208.84	198.3	5.56
100.5457	238.41	201.62	197	196.79	197.63	100.18	207.43	200.75	5.58
101.0445	238.7	201.8	197	196.84	197.72	102.66	207.73	200.74	5.60
101.5453	239	201.19	197.07	196.91	197.79	104.92	208.14	200.74	5.61
102.045	239.2	201.59	197.17	196.97	197.86	108.43	208.43	200.74	5.61
102.5448	238.66	201.93	197.22	197.04	197.9	113.68	208.6	200.76	5.63
103.0457	238.54	201.75	197.2	197.01	197.87	122.07	208.46	200.71	5.65
103.5455	238.81	202.04	197.18	196.99	197.87	131.3	208.45	200.7	5.59
104.0453	238.99	201.45	197.17	196.97	197.83	140.48	208.33	200.69	5.58
104.5452	238.33	200.79	197.15	196.95	197.81	149.61	208.23	200.68	5.60
105.0458	238.58	201.34	197.15	196.95	197.82	157.63	208.22	200.67	5.63
105.5457	238.37	201.9	196.89	196.65	197.49	170.07	206.95	200.74	5.62
106.0455	238.37	202.24	196.87	196.69	197.58	162.67	207.2	200.74	5.61
106.5453	238.87	202.01	196.96	196.8	197.69	163.34	207.67	200.77	5.63
107.0442	239.03	201.45	197.07	196.89	197.78	169.72	208.06	200.78	5.65
107.545	238.92	202.01	197.12	196.92	197.8	179.42	208.18	200.76	5.61
108.0457	238.58	201.96	197.12	196.92	197.8	186.17	208.13	200.74	5.56
108.5447	238.98	201.76	197.09	196.89	197.75	190.06	208.06	200.68	5.58
109.0453	238.6	202.07	197.05	196.86	197.72	192.25	207.87	200.66	5.63
109.5452	238.68	201.82	197.05	196.84	197.73	193.67	207.82	200.66	5.61

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.0458	238.73	202.64	197	196.82	197.72	194.62	207.7	200.59	5.61
110.5448	238.82	202.93	196.64	196.45	197.32	194.3	206.12	200.75	5.61
111.0455	238.61	202.86	196.77	196.63	197.54	191.68	206.92	200.75	5.64
111.5453	238.99	201.91	196.91	196.75	197.63	192.63	207.36	200.8	5.60
112.0452	239.11	201.03	196.97	196.75	197.67	194.64	207.48	200.8	5.58
112.545	239.22	200.51	196.99	196.77	197.67	195.68	207.52	200.78	5.58
113.0448	238.65	200.82	196.97	196.79	197.65	196.29	207.45	200.73	5.61
113.5455	239.04	201.25	196.95	196.74	197.62	196.56	207.31	200.67	5.62
114.0453	238.95	202.36	196.93	196.74	197.62	196.68	207.34	200.62	5.61
114.5443	238.83	202.45	196.92	196.72	197.62	196.77	207.19	200.62	5.62
115.045	238.97	201.61	196.9	196.69	197.58	196.85	207.1	200.57	5.63
115.5448	238.92	201.77	196.65	196.45	197.44	195.43	206.34	200.77	5.63
116.0447	239.19	201.83	196.81	196.63	197.53	195.88	206.89	200.78	5.58
116.5453	239.19	201.4	196.88	196.71	197.49	196.71	207.16	200.8	5.56
117.0452	239.32	201.38	196.87	196.67	197.55	196.92	206.99	200.77	5.58
117.545	239.21	202.4	196.87	196.67	197.55	197.01	206.95	200.76	5.60
118.0448	239.21	202.62	196.87	196.67	197.57	197.08	207.05	200.78	5.60
118.5457	238.24	201.29	196.87	196.65	197.55	197.1	206.96	200.7	5.60
119.0455	238.76	201.72	196.83	196.64	197.43	197.1	206.84	200.64	5.62
119.5453	238.69	202.4	196.58	196.42	197.28	195.69	206.31	200.79	5.65
120.0442	238.73	200.83	196.76	196.6	197.5	195.96	206.7	200.69	5.63
120.544	238.94	200.31	196.8	196.62	197.52	197.02	206.84	200.69	5.58
121.0457	238.64	201.1	196.84	196.66	197.54	197.16	206.97	200.73	5.57
121.5445	238.91	201.03	196.86	196.66	197.55	197.2	206.95	200.85	5.59
122.0453	239	202.32	196.84	196.64	197.63	197.2	206.9	200.79	5.60
122.5452	238.77	202.3	196.82	196.64	197.52	197.16	206.82	200.64	5.59
123.045	239.02	201.62	196.79	196.59	197.45	197.16	206.63	200.5	5.60
123.5457	238.81	202.5	196.68	196.5	197.41	196.93	206.46	200.63	5.62
124.0455	238.57	202.09	196.68	196.52	197.42	197	206.46	200.75	5.64
124.5453	238.88	201.79	196.81	196.64	197.54	197.24	207.04	200.87	5.60
125.0442	239.17	202.7	196.84	196.66	197.54	197.26	206.99	200.81	5.57
125.544	238.86	202.13	196.84	196.65	197.54	197.26	206.88	200.65	5.56
126.0457	238.58	201.07	196.77	196.58	197.47	197.19	206.59	200.41	5.59
126.5447	238.74	200.66	196.74	196.54	197.44	197.17	206.47	200.39	5.63
127.0453	238.79	201.59	196.74	196.56	197.44	197.17	206.53	200.36	5.60
127.5452	239.04	202.72	196.72	196.54	197.44	197.19	206.5	200.39	5.59
128.045	238.51	202.53	196.74	196.56	197.46	197.21	206.54	200.31	5.61
128.5448	238.94	202.65	196.74	196.56	197.46	197.19	206.57	200.42	5.64
129.0455	238.76	202.76	196.74	196.55	197.46	197.21	206.5	200.33	5.60
129.5463	238.94	203.51	196.58	196.44	197.34	196.37	206.43	200.71	5.57
130.0452	239.12	202.67	196.78	196.58	197.48	196.85	206.66	200.61	5.56
130.545	238.96	202.78	196.78	196.6	197.52	197.23	206.78	200.61	5.59
131.0448	239.1	202.28	196.8	196.64	197.53	197.3	206.95	200.65	5.61
131.5455	239.32	202.66	196.84	196.66	197.57	197.32	206.98	200.76	5.61

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.0453	239.34	202.03	196.8	196.6	197.5	197.27	206.74	200.54	5.62
132.5452	238.46	202.3	196.79	196.59	197.48	197.27	206.67	200.48	5.62
133.045	239.07	202.25	196.77	196.57	197.47	197.23	206.62	200.36	5.65
133.544	239	201.8	196.75	196.57	197.47	197.25	206.61	200.45	5.60
134.0455	238.05	203.06	196.75	196.56	197.47	197.24	206.57	200.47	5.55
134.5445	238.88	203.18	196.77	196.59	197.49	197.26	206.6	200.42	5.56
135.0452	238.72	202.45	196.77	196.59	197.47	197.27	206.69	200.37	5.59
135.545	239.02	202.81	196.65	196.51	197.45	196.74	206.66	200.69	5.61
136.0448	239.31	202.52	196.79	196.59	197.51	197.2	206.81	200.62	5.60
136.5457	239.15	201.54	196.81	196.62	197.53	197.31	206.89	200.42	5.61
137.0455	239.1	202.79	196.83	196.65	197.56	197.35	207.02	200.66	5.62
137.5453	239.24	202.22	196.81	196.63	197.51	197.3	206.79	200.5	5.63
138.045	238.96	202.62	196.78	196.6	197.51	197.3	206.71	200.52	5.59
138.5448	238.94	202.1	196.78	196.6	197.5	197.26	206.7	200.37	5.56
139.0457	239.19	202.64	196.76	196.58	197.48	197.28	206.65	200.42	5.57
139.5455	239.14	202.67	196.76	196.57	197.48	197.28	206.66	200.4	5.61
140.0443	238.52	203.48	196.78	196.6	197.5	197.3	206.72	200.36	5.61
140.5452	238.53	203.19	196.77	196.59	197.5	197.29	206.74	200.41	5.60
141.045	238.59	201.62	196.78	196.59	197.48	197.3	206.72	200.47	5.61
141.5447	238.43	201.76	196.79	196.59	197.52	197.32	206.74	200.5	5.62
142.0455	238.09	202.39	196.79	196.59	197.49	197.31	206.74	200.33	5.64
142.5453	238.36	203.22	196.61	196.45	197.38	196.93	206.44	200.56	5.58
143.0452	238.7	203.52	196.74	196.54	197.41	197.2	206.33	199.77	5.57
143.545	238.41	203.61	196.74	196.54	197.42	197.25	206.48	200.04	5.57
144.0457	238.54	202.61	196.68	196.49	197.38	197.18	206.17	199.92	5.61
144.5455	238.65	203.18	196.67	196.47	197.4	197.2	206.21	200.05	5.60
145.0453	238.06	202.65	196.68	196.49	197.38	197.2	206.26	200.02	5.60
145.5442	238.36	202.83	196.69	196.49	197.38	197.22	206.34	200.11	5.59
146.044	238.6	202.86	196.67	196.49	197.49	197.23	206.24	199.97	5.63
146.5448	237.93	202.83	196.71	196.49	197.4	197.23	206.29	200.04	5.63
147.0447	238.46	202.67	196.69	196.49	197.39	197.23	206.28	199.97	5.58
147.5453	238.49	203.33	196.69	196.51	197.41	197.21	206.21	200.04	5.56
148.0452	238.33	202.39	196.69	196.51	197.41	197.23	206.29	199.98	5.58
148.545	237.8	203.25	196.69	196.49	197.43	197.26	206.29	200.01	5.61
149.0448	238.41	203.32	196.71	196.51	197.41	197.23	206.29	200.02	5.60
149.5455	238.12	202.94	196.71	196.51	197.43	197.25	206.33	199.99	5.60
150.0453	238.64	201.14	196.77	196.59	197.52	197.34	206.85	200.87	5.61
150.5452	238.75	202.46	196.69	196.53	197.5	197.2	206.87	200.91	5.62
151.045	238.82	202.89	196.86	196.7	197.61	197.43	207.24	200.8	5.62
151.544	238.62	202.34	196.91	196.73	197.63	197.45	207.32	201.05	5.57
152.0455	238.48	201.94	196.88	196.64	197.5	197.36	206.64	199.1	5.55
152.5445	238.27	203.66	196.48	196.23	197.13	196.99	204.99	198.51	5.56
153.0452	238.29	202.27	196.45	196.25	197.07	197	205.23	198.87	5.59
153.545	238.43	202.48	196.47	196.29	197.16	197	205.28	199	5.60

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.0448	238.45	202.64	196.47	196.27	197.17	197.04	205.26	198.92	5.58
154.5457	238.59	202.74	196.49	196.29	197.18	197.04	205.36	198.96	5.60
155.0455	238.63	203.17	196.49	196.29	197.19	197.04	205.32	198.88	5.61
155.5453	238.85	203.54	196.49	196.29	197.19	197.02	205.31	198.93	5.64
156.045	238.65	203.19	196.49	196.29	197.19	197.04	205.39	198.92	5.58
156.5448	238.9	203.85	196.45	196.31	197.28	197.03	205.79	201.37	5.57
157.0457	239.35	202.35	196.88	196.74	197.67	196.94	207.6	199.37	5.56
157.5455	238.9	202.97	196.6	196.31	197.1	196.94	204.85	197.53	5.58
158.0453	238.83	203.05	196.35	196.21	197.16	196.19	205.42	199.59	5.62
158.5442	239	203.39	196.55	196.37	197.28	196.91	205.72	199.41	5.60
159.045	238.82	203.08	196.66	196.48	197.43	197.25	206.38	200.09	5.61
159.5457	238.53	203.21	196.75	196.55	197.48	197.32	206.66	200.14	5.61
160.0445	238.42	203.12	196.51	196.25	197.07	196.94	204.63	197.46	5.63
160.5453	239.12	202.19	196.69	196.51	197.07	195.76	209.76	205.77	5.60
161.0452	238.66	203.41	196.73	196.34	197.04	196.37	204.84	197.33	5.57
161.545	238.41	203.8	196.41	196.18	197	196.82	204.54	195.47	5.56
162.0467	238.37	203.56	196.27	196.11	197.04	196.68	204.81	198.65	5.57
162.5455	238.75	202.61	196.52	196.34	197.29	197.09	205.9	199.53	5.60
163.0453	238.65	202.55	196.66	196.49	197.4	197.26	206.32	199.74	5.59
163.5452	238.49	203.36	196.66	196.49	197.38	197.24	206.23	199.55	5.61
164.045	238.9	202.38	196.83	196.7	197.65	197.44	207.43	201.6	5.62
164.5457	238.79	202.7	196.88	196.69	197.69	197.44	207.11	200.44	5.64
165.0455	238.63	202.99	196.79	196.65	197.58	196.94	207.35	201.29	5.61
165.5453	238.69	203.44	196.62	196.35	197.19	196.99	205.22	198.12	5.57
166.0452	238.89	202.99	196.62	196.46	197.42	197.12	206.47	200.24	5.56
166.545	238.48	203.1	196.75	196.57	197.5	197.34	206.79	200.26	5.60
167.0438	238.35	203.14	196.82	196.6	197.5	197.37	206.83	200.29	5.61
167.5455	238.69	202.1	196.78	196.59	197.48	197.34	206.74	200.28	5.61
168.0445	238.78	202.23	196.75	196.57	197.48	197.34	206.71	200.37	5.60
168.5443	238.52	203.91	196.77	196.55	197.49	197.33	206.74	200.31	5.62
169.045	238.66	203.65	196.77	196.57	197.49	197.34	206.77	200.32	5.63
169.5448	238.81	202.11	196.75	196.58	197.49	197.33	206.93	200.26	5.58
170.0455	238.58	201.91	196.77	196.58	197.58	197.35	206.79	200.26	5.56
170.5453	237.74	202.77	196.74	196.58	197.53	197.38	206.99	200.76	5.57
171.0452	238.26	203.1	196.83	196.65	197.56	197.42	207.15	200.73	5.58
171.545	238.62	203.55	196.87	196.67	197.57	197.46	207.24	200.74	5.60
172.0448	238.33	201.97	196.87	196.67	197.59	197.44	207.18	200.8	5.59
172.5457	238.8	203.85	196.85	196.66	197.57	197.44	207.14	200.72	5.59
173.0455	238.37	202.8	196.86	196.68	197.59	197.45	207.23	200.75	5.60
173.5443	237.24	203.77	196.89	196.7	197.59	197.47	207.24	200.71	5.62
174.045	238.2	204.4	196.88	196.7	197.59	197.47	207.24	200.7	5.61
174.5448	238.73	203.93	196.89	196.68	197.61	197.49	207.34	200.74	5.57
175.0447	238.11	204.22	196.9	196.7	197.61	197.51	207.29	200.68	5.56
175.5455	238.52	204.22	196.9	196.7	197.7	197.49	207.29	200.7	5.55

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.0453	238.08	204.89	196.9	196.72	197.62	197.49	207.33	200.72	5.60
176.5452	238.54	202.42	196.92	196.72	197.62	197.49	207.36	200.69	5.59
177.045	238.76	203.87	196.9	196.71	197.64	197.5	207.34	200.65	5.60
177.5457	238.73	203.06	196.76	196.55	197.5	197.34	206.78	200.68	5.61
178.0455	238.73	202.35	196.85	196.68	197.59	197.45	207.16	200.7	5.63
178.5462	238.23	204	196.87	196.68	197.59	197.45	207.2	200.69	5.64
179.0452	238.77	204.25	196.89	196.69	197.54	197.48	207.28	200.82	5.57
179.544	238.26	204.93	196.91	196.71	197.65	197.52	207.42	200.77	5.55
180.0457	238.77	203.88	196.93	196.73	197.63	197.52	207.39	200.65	5.55
180.5455	238.97	205.53	196.93	196.72	197.63	197.5	207.34	200.66	5.57
181.0443	239.06	203.83	196.92	196.72	197.61	197.49	207.34	200.7	5.61
181.5452	238.04	204.44	196.92	196.7	197.63	197.51	207.37	200.68	5.61
182.045	238.58	204.04	196.92	196.7	197.64	197.49	207.36	200.72	5.60
182.5448	238.85	204.28	196.92	196.72	197.62	197.51	207.36	200.69	5.61
183.0455	238.76	204.17	196.92	196.72	197.62	197.51	207.39	200.68	5.64
183.5453	238.44	204.62	196.92	196.71	197.62	197.5	207.33	200.72	5.61
184.0452	238.8	204.57	196.92	196.71	197.64	197.5	207.33	200.63	5.56
184.545	238.44	204.23	196.75	196.57	197.61	197.37	206.94	200.67	5.58
185.0457	238.6	203.54	196.87	196.68	197.57	197.45	207.14	200.7	5.59
185.5455	238.98	204.61	196.86	196.66	197.57	197.45	207.13	200.73	5.60
186.0453	239.02	203.95	196.9	196.7	197.61	197.49	207.29	200.73	5.60
186.5452	239.04	203.92	196.9	196.68	197.61	197.51	207.33	200.69	5.58
187.0442	239.08	204.88	196.92	196.7	197.63	197.51	207.38	200.67	5.62
187.544	238.4	204.9	196.92	196.72	197.61	197.51	207.36	200.64	5.65
188.0447	237.7	204.31	196.9	196.72	197.64	197.53	207.37	200.68	5.60
188.5445	237.74	203.26	196.9	196.71	197.62	197.49	207.33	200.64	5.57
189.0452	238.64	203.42	196.9	196.69	197.62	197.5	207.37	200.61	5.57
189.545	238.65	203.57	196.91	196.71	197.62	197.51	207.46	200.74	5.61
190.0448	238.55	204.3	196.92	196.71	197.62	197.5	207.4	200.69	5.61
190.5457	238.71	204.16	196.91	196.71	197.55	197.52	207.34	200.62	5.60
191.0455	238.66	203.75	196.91	196.71	197.61	197.5	207.34	200.64	5.62
191.5453	238.16	203.97	196.75	196.57	197.52	197.38	206.95	200.67	5.64
192.045	238.75	204.49	196.86	196.66	197.57	197.45	207.19	200.69	5.62
192.544	238.5	204.15	196.86	196.68	197.59	197.45	207.22	200.7	5.58
193.0457	238.79	203.34	196.88	196.72	197.54	197.51	207.37	200.75	5.55
193.5445	238.88	205.26	196.9	196.72	197.63	197.52	207.41	200.62	5.57
194.0443	238.74	204.29	196.92	196.7	197.62	197.49	207.39	200.72	5.60
194.5452	238.76	205.14	196.9	196.7	197.62	197.47	207.33	200.64	5.59
195.045	238.49	203.24	196.9	196.71	197.62	197.49	207.39	200.65	5.60
195.5447	238.85	202.26	196.91	196.71	197.6	197.5	207.4	200.63	5.61
196.0455	238.44	203.85	196.91	196.73	197.68	197.52	207.36	200.59	5.64
196.5453	238.93	202.87	196.89	196.71	197.62	197.48	207.33	200.68	5.64
197.0452	239.03	204.05	196.89	196.69	197.63	197.48	207.34	200.58	5.57
197.545	238.82	202.8	196.89	196.71	197.61	197.48	207.34	200.57	5.56

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.0457	238.77	203.45	196.89	196.72	197.61	197.5	207.33	200.59	5.59
198.5455	238.72	203.47	196.9	196.7	197.6	197.49	207.29	200.58	5.61
199.0453	239.13	203.04	196.9	196.68	197.6	197.51	207.37	200.62	5.60
199.5452	238.54	204.38	196.92	196.72	197.62	197.49	207.36	200.62	5.61
200.045	238.29	204.21	196.9	196.7	197.6	197.49	207.29	200.53	5.60
200.5438	238.88	204.62	196.9	196.7	197.6	197.49	207.38	200.6	5.62
201.0455	239.15	203.96	196.9	196.69	197.6	197.49	207.33	200.53	5.61
201.5445	238.4	204.09	196.9	196.69	197.6	197.48	207.31	200.57	5.56
202.0452	238.94	204.44	196.89	196.69	197.6	197.5	207.3	200.65	5.56
202.545	238.51	204.71	196.91	196.69	197.61	197.5	207.32	200.56	5.57
203.0448	238.96	202.98	196.89	196.69	197.61	197.5	207.35	200.53	5.59
203.5455	239.11	203.46	196.89	196.7	197.61	197.48	207.37	200.52	5.59
204.0453	239.02	204.74	196.89	196.68	197.59	197.5	207.35	200.52	5.59
204.5452	238.72	204.74	196.9	196.68	197.61	197.51	207.33	200.5	5.61
205.045	237.64	204.31	196.9	196.7	197.61	197.51	207.34	200.51	5.62
205.5448	238.31	204.53	196.69	196.45	197.37	197.2	206.13	200.6	5.65
206.0455	238.33	204.32	196.83	196.63	197.57	197.4	207.19	200.66	5.59
206.5453	238.65	205.01	196.87	196.65	197.59	197.46	207.2	200.68	5.55
207.0452	238.82	205.61	196.87	196.67	197.59	197.5	207.3	200.7	5.55
207.5442	238.53	204.97	196.93	196.71	197.62	197.52	207.5	200.8	5.59
208.0448	238.32	203.57	196.93	196.75	197.64	197.54	207.52	200.73	5.60
208.5447	238.36	204.32	196.91	196.71	197.63	197.52	207.43	200.69	5.59
209.0445	238.88	204.41	196.9	196.72	197.61	197.52	207.47	200.7	5.60
209.5453	238.25	203.07	196.9	196.72	197.63	197.51	207.47	200.64	5.62
210.045	238.72	204.22	196.92	196.72	197.63	197.51	207.52	200.63	5.65
210.5448	238.9	205.03	196.92	196.72	197.63	197.53	207.44	200.63	5.60
211.0457	238.92	205.14	196.9	196.71	197.62	197.51	207.54	200.65	5.57
211.5455	238.94	205.27	196.92	196.71	197.64	197.53	207.44	200.61	5.59
212.0453	238.64	203.53	196.92	196.73	197.64	197.51	207.5	200.62	5.63
212.5452	238.87	204.55	196.91	196.69	197.62	197.5	207.45	200.66	5.62
213.045	238.85	205.72	196.91	196.71	197.63	197.52	207.47	200.61	5.63
213.5457	238.96	203.98	196.91	196.71	197.63	197.52	207.47	200.66	5.64
214.0455	239.05	203.39	196.93	196.73	197.66	197.52	207.52	200.64	5.67
214.5443	238.79	203.77	196.91	196.72	197.61	197.52	207.49	200.6	5.59
215.0442	238.95	204.36	196.9	196.7	197.63	197.52	207.45	200.59	5.58
215.545	239.04	205.01	196.92	196.7	197.62	197.53	207.44	200.57	5.58
216.0448	239.12	204.96	196.9	196.7	197.62	197.53	207.43	200.71	5.59
216.5447	238.78	205.23	196.71	196.51	197.48	197.26	206.91	200.67	5.62
217.0453	238.35	204.41	196.85	196.64	197.57	197.46	207.25	200.61	5.62
217.5452	238.78	205.32	196.87	196.67	197.57	197.48	207.26	200.67	5.63
218.045	238.19	204.43	196.87	196.69	197.6	197.5	207.39	200.68	5.65
218.5448	238.85	205.02	196.89	196.71	197.62	197.52	207.46	200.64	5.60
219.0455	238.84	205.9	196.91	196.69	197.61	197.52	207.46	200.64	5.56

Table B3. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
219.5453	238.57	206.71	196.89	196.7	197.61	197.52	207.49	200.6	5.57
220.0452	238.64	204.13	196.89	196.7	197.63	197.52	207.44	200.61	5.61
220.544	239.11	204.74	196.9	196.7	197.61	197.5	207.42	200.65	5.60
221.0438	238.5	204.58	196.9	196.7	197.61	197.52	207.49	200.64	5.60
221.5447	238.95	204.56	196.9	196.72	197.72	197.53	207.47	200.63	5.61
222.0445	238.58	203.97	196.9	196.7	197.62	197.53	207.47	200.57	5.64
222.5452	238.85	204.17	196.9	196.69	197.62	197.51	207.43	200.64	5.63
223.045	239.17	205.05	196.89	196.69	197.6	197.51	207.45	200.58	5.58
223.5448	239.41	204.59	196.87	196.69	197.6	197.5	207.44	200.56	5.55
224.0455	239.32	205.07	196.91	196.71	197.62	197.52	207.44	200.66	5.58
224.5453	238.89	205.7	196.91	196.69	197.61	197.54	207.46	200.63	5.61
225.0452	239.13	205.56	196.89	196.71	197.63	197.52	207.45	200.63	5.59
225.545	239.04	204.97	196.91	196.7	197.61	197.52	207.46	200.6	5.60
226.044	238.66	203.63	196.91	196.72	197.61	197.52	207.44	200.61	5.60
226.5465	238.81	204.13	196.9	196.72	197.61	197.52	207.49	200.54	5.63
227.0455	238.18	205.97	196.9	196.7	197.61	197.51	207.48	200.66	5.62
227.5443	238.86	205.87	196.9	196.7	197.62	197.53	207.42	200.55	5.56
228.045	238.92	206.53	196.9	196.7	197.6	197.53	207.57	200.6	5.57
228.5448	238.81	205.5	196.65	196.44	197.37	197.21	206.38	200.55	5.59
229.0447	238.54	206.43	196.81	196.63	197.55	197.42	207.16	200.54	5.63
229.5455	238.92	205.96	196.83	196.64	197.55	197.46	207.22	200.65	5.61
230.0453	238.64	204.69	196.87	196.69	197.6	197.5	207.36	200.55	5.61
230.5452	238.05	206.52	196.89	196.71	197.62	197.52	207.43	200.69	5.62
231.045	238.05	207.08	196.91	196.69	197.61	197.52	207.4	200.58	5.65
231.5457	238.84	207.63	196.89	196.68	197.59	197.48	207.35	200.53	5.59
232.0455	239.27	207.6	196.89	196.68	197.61	197.5	207.35	200.57	5.56
232.5453	238.79	206.98	196.91	196.7	197.6	197.52	207.37	200.51	5.58
233.0442	238.68	206.82	196.88	196.68	197.6	197.52	207.37	200.55	5.61
233.544	239.24	204.94	196.9	196.68	197.6	197.51	207.38	200.53	5.61
234.0457	237.98	205.98	196.9	196.7	197.62	197.53	207.39	200.53	5.61
234.5447	238.74	206.35	196.9	196.7	197.6	197.51	207.37	200.51	5.61
235.0453	239.06	206.89	196.88	196.69	197.6	197.53	207.38	200.55	5.64
235.5452	238.85	205.39	196.9	196.67	197.58	197.51	207.37	200.49	5.61
236.045	238.9	206.02	196.9	196.69	197.6	197.51	207.36	200.54	5.57
236.5448	239.08	206.43	196.91	196.69	197.51	197.52	207.37	200.5	5.58
237.0455	237.83	204.8	196.89	196.69	197.61	197.52	207.37	200.49	5.59
237.5453	238.51	205.97	196.91	196.69	197.62	197.52	207.39	200.54	5.61
238.0452	238.94	203.98	196.89	196.68	197.61	197.5	207.38	200.55	5.60
238.544	238.68	205.45	196.7	196.51	197.46	197.23	206.92	200.48	5.60
239.0438	238.82	205.74	196.79	196.59	197.5	197.41	207.01	200.41	5.63
239.5455	238.52	205.85	196.84	196.64	197.56	197.45	207.23	200.66	5.65

Table B4-Temperature and production data for run 4

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
0.5455	247.89	176.06	62.21	64.43	63.61	57.5	207.19	203.66	5.57
1.046167	246.48	193.18	62.24	64.45	63.64	57.54	207.59	203.98	5.55
1.545167	245.05	195.29	62.27	64.48	63.69	57.57	207.97	204.45	5.55
2.045	242.94	195.74	62.3	64.51	63.7	57.6	208.29	204.8	5.57
2.544833	241.37	195.91	62.26	64.48	63.67	57.56	208.58	205.08	5.59
3.0455	239.87	195.92	62.27	64.5	63.67	57.57	208.9	205.37	5.61
3.545333	238.07	196.05	62.3	64.51	63.72	57.62	209.22	205.72	5.60
4.044333	235.98	196.29	62.32	64.54	63.72	57.64	209.57	206.07	5.61
4.545833	234.27	196.46	62.35	64.55	63.73	57.63	209.94	206.45	5.62
5.045667	233.2	196.64	62.36	64.57	63.76	57.64	210.35	206.85	5.62
5.5455	232.25	196.78	62.36	64.54	63.74	57.66	210.74	207.23	5.57
6.046333	230.86	197.37	62.39	64.62	63.94	57.69	205.7	202.24	5.55
6.545166	228.99	196.86	62.38	64.61	63.82	57.72	206.32	202.8	5.56
7.045	229.16	196.78	62.38	64.64	63.84	57.72	206.25	202.57	5.58
7.544833	229.92	197.14	62.41	64.66	63.87	57.75	204.71	201.02	5.58
8.045667	230.21	197.17	62.38	64.65	63.87	57.74	203.17	199.47	5.58
8.545333	230.5	197.19	62.42	64.64	63.88	57.74	201.53	197.88	5.58
9.046167	231.04	196.48	62.39	64.62	63.87	57.73	206.43	202.68	5.58
9.545	231.26	197.56	62.38	64.63	63.85	57.74	204.85	201.16	5.62
10.04483	230.97	197.64	62.42	64.6	63.84	57.74	203.32	199.62	5.64
10.5465	230.74	197.36	62.43	64.58	63.85	57.73	201.85	198.13	5.58
11.04633	231	195.03	62.47	64.63	63.89	57.74	209.84	206.03	5.56
11.54617	230.54	197.64	62.5	64.6	63.86	57.76	208.56	205.12	5.57
12.045	229.38	198.14	62.52	64.58	63.85	57.73	208.46	204.89	5.59
12.54483	229.22	198.27	62.58	64.61	63.85	57.71	207.92	204.28	5.60
13.04567	229.87	198.21	62.63	64.59	63.84	57.74	207.79	204.18	5.59
13.5455	232.04	198.44	62.69	64.58	63.84	57.73	207.75	204.08	5.58
14.04533	234.59	198.7	62.77	64.57	63.83	57.71	207.72	204.1	5.61
14.54517	236.01	198.92	62.85	64.55	63.84	57.7	207.82	204.14	5.65
15.045	236.25	198.83	62.97	64.56	63.84	57.72	208.04	204.26	5.60
15.54567	236	198.97	63.11	64.58	63.83	57.73	208.28	204.43	5.55
16.0455	235.38	199.54	63.26	64.59	63.81	57.73	208.53	204.71	5.55
16.54533	234.83	199.62	63.48	64.59	63.84	57.74	208.88	205.09	5.57
17.04517	234.03	199.86	63.69	64.6	63.84	57.74	209.46	205.6	5.61
17.545	233.51	200.72	63.96	64.6	63.86	57.75	210.16	206.26	5.60
18.04483	233.18	200.89	64.25	64.62	63.89	57.75	210.92	206.97	5.60
18.5455	232.39	201.37	64.69	64.61	63.91	57.79	202.28	198.46	5.60
19.04533	232.93	201.16	65.07	64.61	63.91	57.78	201.98	198.12	5.63
19.54517	233.67	200.45	65.41	64.58	63.9	57.74	201.68	197.76	5.63
20.045	234.88	199.43	65.7	64.59	63.9	57.77	207.1	203.21	5.58
20.54483	235.38	199.98	66.14	64.57	63.91	57.75	206.2	202.31	5.57
21.0455	235.53	199.73	66.58	64.55	63.93	57.77	205.5	201.53	5.58
21.54533	235.6	199.73	67.09	64.54	63.92	57.74	204.89	200.91	5.62
22.04517	235.73	199.43	67.62	64.54	63.9	57.72	204.37	200.35	5.62

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
22.545	235.54	199.49	68.21	64.55	63.92	57.73	203.9	199.95	5.62
23.04483	235.27	199.31	68.85	64.59	63.94	57.75	203.57	199.51	5.63
23.5455	234.47	199.81	69.53	64.59	63.93	57.73	203.32	199.22	5.63
24.04533	233.93	200.32	70.31	64.61	63.87	57.74	203.4	199.02	5.59
24.54517	233.42	199.94	71.29	64.61	63.86	57.74	203.01	198.79	5.57
25.045	233.03	199.46	72.5	64.62	63.81	57.74	202.81	198.57	5.56
25.54483	232.72	199.27	73.95	64.62	63.92	57.75	202.68	198.41	5.59
26.04567	232.44	199.36	75.78	64.62	63.81	57.71	202.62	198.2	5.61
26.54533	232.01	198.74	77.97	64.62	63.81	57.71	202.85	199.59	5.59
27.04517	232.3	198.95	79.25	64.63	63.81	57.71	207.21	203.27	5.59
27.545	231.96	199.51	80.58	64.63	63.84	57.76	207.54	202.99	5.61
28.04483	232.56	199.78	84.5	64.63	63.84	57.72	207.64	202.96	5.64
28.54567	234.64	201.04	90.04	64.63	63.82	57.72	207.84	203.02	5.62
29.0455	234.64	201.06	97.83	64.62	63.8	57.74	208.22	203.28	5.58
29.54533	235.43	201.27	108.88	64.58	63.77	57.74	208.76	203.63	5.57
30.045	235.9	201.04	123.74	64.58	63.71	57.73	209.27	204.08	5.59
30.54583	235.61	201.71	142.12	64.58	63.75	57.73	208.59	203.75	5.62
31.04567	235.86	202.62	157.14	64.57	63.7	57.71	206.42	198.03	5.60
31.5455	235.4	203.82	182.03	64.53	63.7	57.67	205.59	201.04	5.61
32.04617	236.31	203.09	187.54	64.5	63.7	57.62	206.92	202.46	5.63
32.54517	236.94	202.55	190.7	64.46	63.68	57.6	207.74	202.62	5.65
33.045	237.05	201.66	193.35	64.4	63.69	57.55	206.69	201.77	5.61
33.54567	237.29	201.21	194.7	64.42	63.71	57.53	205.69	200.75	5.57
34.04633	237.18	201.77	195.38	64.41	63.69	57.51	204.79	199.77	5.57
34.54533	237.31	201.41	195.68	64.41	63.71	57.51	203.89	198.69	5.60
35.04417	237.41	201.54	195.9	64.41	63.71	57.51	204.21	200.15	5.62
35.545	237.72	201.13	196.02	64.43	63.73	57.51	203.9	198.73	5.59
36.04483	237.81	200.56	196.29	64.49	63.73	57.5	205.1	201.24	5.61
36.54467	237.88	200.47	196.42	64.49	63.71	57.48	205.72	200.88	5.62
37.04533	237.58	200.36	196.6	64.51	63.77	57.52	205.6	200.82	5.63
37.54517	237.31	200.27	196.71	64.54	63.79	57.5	205.58	200.86	5.57
38.045	237.06	200.52	196.78	64.58	63.9	57.46	205.64	200.91	5.56
38.54483	236.94	200.79	196.87	64.64	63.87	57.48	205.81	200.97	5.55
39.04467	236.67	201.26	196.93	64.7	63.91	57.46	205.98	201.09	5.61
39.54533	236.33	201.01	197.02	64.78	63.94	57.47	206.21	201.24	5.60
40.04517	236.08	200.8	197.07	64.83	64.04	57.47	206.68	201.49	5.60
40.545	235.22	200.74	197.18	64.93	64.06	57.49	207.02	201.92	5.61
41.04483	234.52	200.84	197.33	65.08	64.14	57.53	207.69	202.53	5.59
41.5455	234.1	201.71	197.51	65.18	64.2	57.53	208.68	203.34	5.62
42.04633	233.9	201.86	197.72	65.35	64.25	57.53	209.73	204.34	5.58
42.54617	233.26	202.86	197.72	65.56	64.33	57.49	207.51	201.64	5.56
43.045	232.83	203.95	197.38	65.82	64.43	57.51	207.48	201.54	5.56
43.54483	233.54	202.47	197.28	66.15	64.43	57.49	206.72	200.46	5.57
44.04567	234.1	201.83	197.15	66.64	64.43	57.49	206.36	200.37	5.61

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
44.54533	234.84	201.74	197.08	67.39	64.49	57.5	206.11	200.41	5.59
45.04517	235.52	202.03	197.03	68.55	64.52	57.48	205.97	200.41	5.60
45.545	236.25	201.94	197.03	70.13	64.56	57.48	205.82	200.43	5.60
46.04583	236.63	202.06	197.01	72.11	64.6	57.52	205.76	200.43	5.63
46.54467	236.97	201.19	197	74.46	64.64	57.61	205.67	200.44	5.61
47.0445	237.44	201.47	196.96	77.07	64.64	57.67	205.72	200.46	5.57
47.54533	237.64	201.62	196.96	79.96	64.68	57.77	205.77	200.43	5.55
48.045	237.71	201.32	196.98	83.18	64.7	57.85	205.79	200.47	5.57
48.54483	237.52	201.12	197	86.66	64.72	57.94	205.86	200.45	5.59
49.04567	237.39	201.48	197.02	90.45	64.74	58.04	205.96	200.46	5.60
49.5455	236.93	200.94	197.04	94.6	64.74	58.14	205.99	200.46	5.59
50.04533	236.66	201.3	197.06	99.02	64.75	58.23	206	200.47	5.61
50.54517	236.7	200.95	197.04	103.83	64.75	58.27	206.11	200.49	5.61
51.04583	236.54	200.66	197.08	109.67	64.79	58.37	206.24	200.47	5.61
51.5475	236.2	201.63	197.12	116.94	64.77	58.47	206.34	200.47	5.62
52.0455	236	201.13	197.14	125.9	64.81	58.56	206.53	200.49	5.58
52.54533	235.85	201.17	197.2	139.71	64.81	58.68	206.8	200.51	5.58
53.04517	235.51	201.19	197.25	156.74	64.79	58.76	207.15	200.5	5.61
53.54583	235.2	201.5	197.32	171	64.82	58.84	207.45	200.63	5.61
54.04567	234.9	202.47	197.34	183.38	64.82	58.97	207.53	200.64	5.60
54.5455	234.69	202	197.38	190.2	64.88	59.1	207.75	200.82	5.61
55.04433	234.55	202.54	197.44	193.62	64.9	59.2	207.9	200.83	5.63
55.54417	234.64	202.38	197.42	195.4	64.94	59.32	207.79	200.71	5.63
56.045	234.98	202.73	197.41	196.19	64.98	59.43	207.57	200.66	5.58
56.54483	235.42	202.09	197.34	196.44	65.02	59.51	207.33	200.56	5.56
57.0465	236.04	202	197.29	196.54	65.06	59.63	207.15	200.57	5.57
57.54633	236.57	201.55	197.13	196.45	65.08	59.71	206.47	201.27	5.60
58.04517	236.68	202.07	197.19	196.58	65.11	59.75	206.92	201.29	5.60
58.54417	237	201.65	197.29	196.69	64.99	59.81	207.21	201.31	5.60
59.04567	237.2	201.15	197.3	196.71	65.17	59.87	207.15	201.2	5.60
59.5465	237.44	201.67	197.28	196.73	65.19	59.93	207.11	201.12	5.62
60.04533	237.62	201.31	197.25	196.68	65.23	59.97	206.93	200.97	5.63
60.54517	237.6	201.48	197.22	196.68	65.29	60.03	206.84	200.92	5.59
61.045	237.46	200.94	197.22	196.66	65.35	60.09	206.76	200.82	5.55
61.54583	237.43	200.93	197.2	196.67	65.39	60.13	206.74	200.79	5.56
62.04567	237.47	200.65	197.19	196.65	65.47	60.17	206.76	200.75	5.61
62.54533	237.11	201.87	197.07	196.55	65.6	60.25	206.1	201.3	5.61
63.04517	236.97	201.24	197.11	196.62	65.68	60.29	206.53	201.33	5.58
63.54417	236.92	201.32	197.22	196.75	65.8	60.31	207.05	199.53	5.60
64.044	236.46	200.71	197.2	196.74	65.97	60.39	206.86	201.24	5.61
64.54567	236.07	201.31	197.22	196.76	66.2	60.41	206.94	200.33	5.62
65.0445	235.82	201.45	197.23	196.74	66.49	60.51	206.93	200.33	5.59
65.54533	235.66	202.44	197.25	196.78	66.93	60.55	207.14	200.32	5.56
66.045	235.25	202.7	197.29	196.86	67.31	60.65	207.35	200.36	5.57

Table B4. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
66.544	235.13	202.2	197.33	196.88	67.9	60.69	207.53	200.35	5.58
67.04567	234.97	202.84	197.28	196.79	68.69	60.77	206.99	201.02	5.61
67.5445	235.16	202.35	197.3	196.88	69.54	60.83	207.63	201.02	5.63
68.04533	235.47	203.48	197.43	197	70.66	60.91	208.2	201.08	5.60
68.54417	235.54	202.64	197.43	197	72.23	60.94	207.95	200.86	5.64
69.04501	235.87	202.22	197.44	197	74.34	61.02	207.85	200.78	5.65
69.54567	236.34	202.85	197.4	196.97	76.97	61.08	207.8	200.68	5.59
70.0455	236.41	202.87	197.37	196.98	80.1	61.12	207.64	200.6	5.56
70.54433	236.58	202.39	197.37	196.98	83.95	61.2	207.58	200.55	5.58
71.04517	236.94	201.94	197.34	196.93	88.28	61.24	207.4	200.49	5.61
71.54501	237.14	201.45	197.22	196.79	93.35	61.28	206.72	200.88	5.60
72.04483	237.36	201.6	197.17	196.8	97.05	61.33	206.87	200.9	5.61
72.5455	237.42	201.89	197.19	196.82	101.3	61.37	206.79	199.84	5.62
73.04533	237.34	201.5	197.16	196.8	107.37	61.41	206.62	199.76	5.63
73.54517	237.47	201.72	197.13	196.76	114.23	61.47	206.48	199.72	5.62
74.04501	237.43	200.93	197.1	196.74	121.95	61.51	206.34	199.69	5.57
74.54483	237.42	200.74	197.09	196.71	128.68	61.56	206.36	199.66	5.55
75.0455	237.39	200.76	197.11	196.73	134.1	61.58	206.46	201.4	5.58
75.54533	237.25	201.2	197.17	196.83	134.91	61.62	206.94	200.23	5.61
76.04617	236.79	201.4	197.22	196.88	140.44	61.63	207.1	200.27	5.60
76.54501	236.7	201.65	197.26	196.92	146.85	61.71	207.29	200.25	5.61
77.04483	236.69	201.51	197.3	196.96	153.69	61.71	207.47	200.23	5.62
77.5455	236.5	201.59	197.26	196.88	161.76	61.77	207.13	200.78	5.65
78.04533	236.25	201.63	197.3	196.94	166.65	61.8	207.43	200.87	5.60
78.54517	236.02	201.81	197.37	197.05	173.75	61.86	207.91	199.39	5.57
79.04501	235.6	202.71	197.45	197.07	182.19	61.92	208.06	199.36	5.58
79.54483	235.37	201.96	197.45	197.09	187.94	61.98	208.22	199.37	5.61
80.04567	235.1	202.35	197.49	197.12	191.39	62.04	208.22	199.39	5.61
80.54633	235.23	203.39	197.48	197.12	193.68	62.15	208.26	199.39	5.60
81.04517	235.52	202.69	197.52	197.18	194.58	62.2	208.64	201.12	5.60
81.54501	235.6	202.93	197.6	197.26	195.41	62.27	208.89	200.01	5.63
82.04483	235.91	202.83	197.5	197.12	196.53	62.39	208.11	200.54	5.62
82.54467	236.31	203.07	197.46	197.12	196.91	62.5	208.21	200.64	5.57
83.0455	236.75	203.11	197.5	197.17	197.11	62.62	208.41	200.63	5.57
83.54433	236.82	203.74	197.53	197.19	197.28	62.76	208.49	200.61	5.58
84.04501	236.99	204.59	197.53	197.19	197.37	62.92	208.42	200.56	5.61
84.54483	237.15	203.23	197.5	197.16	197.43	63.09	208.26	200.51	5.60
85.04467	237	202.84	197.47	197.13	197.47	63.25	208.19	200.46	5.61
85.5455	237.24	203.81	197.46	197.12	197.49	63.44	208.01	200.41	5.62
86.04533	237.17	203.52	197.43	197.09	197.62	63.62	207.92	200.36	5.64
86.54517	237.05	202.52	197.33	196.97	197.45	63.87	207.25	200.6	5.62
87.04583	237.25	203.53	197.22	196.88	197.44	64.07	207.07	200.55	5.57
87.54567	237.33	202.08	197.23	196.92	197.48	64.28	207.25	200.52	5.56
88.0455	237.41	202.34	197.27	197	197.54	64.53	207.37	200.52	5.59

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.54533	237.09	202.43	197.31	197.02	197.61	64.89	207.63	200.5	5.62
89.04517	236.98	202.49	197.35	197.05	197.65	65.28	207.71	200.49	5.60
89.54501	236.76	202.4	197.37	197.07	197.68	65.77	207.85	200.47	5.61
90.04567	236.74	202.5	197.4	197.07	197.7	66.33	207.94	200.45	5.61
90.5455	236.41	202.15	197.44	197.11	197.76	66.96	208.12	200.45	5.65
91.04617	236.25	202.13	197.44	197.14	197.8	67.66	208.25	200.44	5.62
91.546	236.17	202.59	197.45	197.09	197.73	68.55	207.84	200.66	5.56
92.04501	235.96	203.67	197.35	197.04	197.72	69.48	207.74	200.59	5.56
92.54483	235.78	203.17	197.39	197.1	197.78	70.33	208.14	200.56	5.58
93.0455	235.88	203.07	197.48	197.18	197.8	71.43	208.52	200.59	5.60
93.54533	236.05	203.99	197.56	197.25	197.95	72.76	208.84	200.61	5.60
94.04433	236.21	203.76	197.6	197.3	197.99	74.27	208.96	200.6	5.61
94.54417	236.33	203.96	197.61	197.28	198.02	76.08	208.96	200.59	5.62
95.04483	236.46	203.66	197.61	197.25	198	78.18	208.83	200.56	5.64
95.54467	236.39	205.49	197.51	197.17	197.87	80.91	208.17	200.63	5.60
96.04533	236.63	204.71	197.42	197.1	197.83	83.75	208.06	200.59	5.57
96.54517	236.9	203.34	197.41	197.12	197.86	87.03	208.23	200.57	5.58
97.04501	236.92	203.25	197.42	197.09	197.85	90.93	208.06	200.53	5.61
97.54483	237.2	202.29	197.37	197.06	197.83	95.29	207.92	200.48	5.61
98.04467	237.2	202.28	197.35	197.03	197.8	100.01	207.67	200.43	5.61
98.5445	237.28	202.2	197.29	196.97	197.63	104.92	207.22	200.04	5.62
99.04517	236.97	202.81	197.01	196.65	197.4	110.46	205.85	200.72	5.63
99.54501	237.02	202.08	196.98	196.69	197.46	112.73	206.22	200.75	5.61
100.0448	237.14	203.25	197.05	196.79	197.56	114.81	206.61	200.74	5.56
100.5457	237.39	202.72	197.11	196.83	197.63	117.54	206.87	200.72	5.57
101.0455	237.33	202.92	197.17	196.87	197.69	120.97	207	200.76	5.59
101.5453	237.47	202.08	197.2	196.87	197.68	125.18	207.01	200.73	5.61
102.045	237.57	202.16	197.18	196.88	197.67	129.75	206.99	200.67	5.59
102.5448	237.34	201.72	197.17	196.87	197.65	134.84	206.86	200.61	5.62
103.0447	237.13	201.74	197.16	196.85	197.66	139.98	206.84	198.01	5.61
103.5455	236.69	201.86	196.84	196.52	197.31	148.4	205.27	200.77	5.63
104.0453	236.75	202.51	196.86	196.6	197.42	147.74	205.79	200.77	5.61
104.5452	236.67	203.73	197	196.73	197.55	147.89	206.46	200.83	5.57
105.045	236.67	202.68	197.13	196.86	197.75	150.36	206.99	200.85	5.56
105.5457	236.62	202.7	197.19	196.92	197.72	156.89	207.18	200.86	5.58
106.0455	236.58	203.01	197.23	196.92	197.73	166.73	207.28	200.82	5.60
106.5453	236.38	202.91	197.18	196.82	197.55	176.64	206.44	200.45	5.59
107.0442	236.3	203.22	196.93	196.61	197.45	182.68	205.98	200.85	5.59
107.544	236.45	201.79	197.03	196.74	197.57	182.54	206.56	200.88	5.60
108.0467	236.49	203.34	197.1	196.82	197.64	184.75	206.83	200.93	5.63
108.5455	236.58	203.88	197.15	196.86	197.68	187.41	207.02	200.93	5.61
109.0453	236.55	203.47	197.1	196.74	197.51	190.95	206.12	199.28	5.56
109.5452	236.07	203.16	196.91	196.6	197.46	193.14	205.58	193.14	5.56
110.044	236.33	202.27	196.86	196.59	197.43	192.42	205.91	201.06	5.57

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.5448	236.87	202.65	196.99	196.72	197.54	193.12	206.39	201.06	5.60
111.0447	236.97	202.94	196.92	196.6	197.41	194.93	205.65	199.58	5.59
111.5453	237.22	204.95	196.84	196.57	197.41	195.69	205.74	200.81	5.59
112.0452	237.26	203.43	196.91	196.63	197.49	195.93	205.99	200.85	5.61
112.545	237.47	202.67	196.94	196.67	197.51	196.13	206.13	200.86	5.61
113.0448	237.69	203.41	196.96	196.67	197.5	196.32	206.08	200.79	5.62
113.5455	237.17	203.41	196.86	196.59	197.5	194.89	205.85	201.18	5.57
114.0453	237.27	204.1	196.95	196.67	197.51	195.99	206.1	199.99	5.55
114.5452	237.26	203.74	196.82	196.53	197.35	196.56	205.45	200.7	5.56
115.045	237.14	202.44	196.86	196.6	197.54	196.8	205.79	200.93	5.60
115.5448	237.41	202.66	196.95	196.67	197.52	196.92	206.17	201.04	5.60
116.0455	237.24	202.52	196.96	196.69	197.53	196.97	206.12	200.9	5.59
116.5453	237.31	202.91	196.94	196.66	197.5	197	206.06	200.74	5.60
117.0452	237.25	202.5	196.93	196.64	197.49	197.02	205.93	200.64	5.62
117.5442	236.95	202.86	196.81	196.58	197.4	196.56	205.74	200.91	5.63
118.044	236.97	203.17	196.91	196.64	197.5	197.05	206.03	200.91	5.58
118.5457	236.87	202.53	196.95	196.68	197.54	197.14	206.19	201.05	5.58
119.0455	236.52	203.06	197	196.7	197.51	197.13	206.01	199.23	5.57
119.5453	236.41	205.18	196.74	196.44	197.26	196.94	205.03	200.13	5.60
120.045	236.76	204.66	196.75	196.48	197.3	197	205.25	200.15	5.61
120.5448	236.66	203.97	196.81	196.52	197.36	197.06	205.46	200.12	5.61
121.0447	236.64	203.65	196.72	196.4	197.24	196.62	204.99	200.46	5.62
121.5455	236.92	203.62	196.82	196.53	197.39	196.89	205.65	200.45	5.62
122.0453	236.9	203.63	196.86	196.57	197.5	197.14	205.73	200.45	5.62
122.5452	237.21	205.31	196.88	196.6	197.45	197.2	205.88	200.56	5.57
123.045	237.08	202.97	196.9	196.6	197.46	197.19	205.79	200.4	5.56
123.5457	237.01	202.93	196.84	196.55	197.3	197.14	205.5	200.17	5.56
124.0455	237	203.63	196.81	196.52	197.36	197.11	205.43	200.13	5.60
124.5453	236.98	204.71	196.72	196.44	197.3	196.88	205.21	200.42	5.58
125.0452	237.19	204.25	196.8	196.55	197.39	197.1	205.6	200.39	5.59
125.544	237.28	202.84	196.86	196.59	197.45	197.22	205.76	200.49	5.62
126.0457	237.45	204.19	196.86	196.59	197.44	197.22	205.77	200.46	5.61
126.5447	237.26	201.69	196.83	196.56	197.41	197.19	205.49	200.36	5.61
127.0443	237.58	202.37	196.8	196.52	197.36	197.16	205.46	200.2	5.55
127.5452	237.59	201.98	196.79	196.5	197.36	197.15	205.43	200.14	5.55
128.045	237.36	201.43	196.78	196.51	197.39	197.17	205.34	200.15	5.56
128.5448	237.24	203.1	196.73	196.44	197.34	196.98	205.38	200.41	5.59
129.0455	237.25	203.04	196.8	196.54	197.4	197.18	205.57	200.31	5.59
129.5453	236.96	202.29	196.86	196.58	197.46	197.26	205.78	200.43	5.60
130.0452	236.85	203.44	196.87	196.58	197.43	197.25	205.65	200.3	5.60
130.545	236.9	202.89	196.82	196.53	197.39	197.21	205.42	200.22	5.60
131.0438	237.02	201.23	196.79	196.52	197.38	197.18	205.5	200.19	5.63
131.5455	236.97	202.22	196.8	196.53	197.37	197.21	205.44	200.21	5.58
132.0445	237.01	203.5	196.8	196.53	197.39	197.19	205.48	200.12	5.54

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.5443	236.92	202.68	196.81	196.54	197.4	197.2	205.5	200.34	5.54
133.045	236.95	203.79	196.81	196.52	197.38	197.2	205.57	200.1	5.56
133.5448	236.97	203.37	196.74	196.48	197.35	197.14	205.45	200.34	5.60
134.0465	236.96	201.82	196.84	196.57	197.41	197.25	205.78	200.33	5.59
134.5453	236.96	201.44	196.86	196.61	197.49	197.29	205.85	200.37	5.59
135.0452	236.8	204.76	196.85	196.58	197.44	197.24	205.65	200.23	5.59
135.545	236.95	204.66	196.82	196.55	197.39	197.25	205.55	200.23	5.61
136.0448	236.96	205.49	196.82	196.54	197.39	197.22	205.56	200.25	5.63
136.5457	237.11	205.94	196.81	196.54	197.4	197.2	205.57	200.27	5.58
137.0455	237.02	204.39	196.82	196.53	197.39	197.21	205.5	200.17	5.55
137.5453	237.17	204.38	196.8	196.53	197.29	197.23	205.5	200.19	5.57
138.045	237.18	204.43	196.81	196.54	197.4	197.24	205.57	200.18	5.60
138.544	237.2	204.13	196.74	196.47	197.35	197.19	205.51	200.36	5.60
139.0465	237.26	203.71	196.85	196.6	197.46	197.3	205.85	200.37	5.60
139.5455	237.19	205.36	196.87	196.61	197.47	197.32	205.86	200.47	5.61
140.0462	237.36	205.03	196.83	196.56	197.4	197.26	205.55	200.16	5.62
140.5452	237.31	203.94	196.8	196.53	197.37	197.23	205.49	200.13	5.62
141.044	237.3	201.94	196.76	196.51	197.28	197.21	205.4	200.14	5.57
141.5457	237.34	202.84	196.79	196.52	197.36	197.22	205.39	200.05	5.55
142.0445	237.32	204.29	196.76	196.49	197.37	197.19	205.45	200.1	5.57
142.5443	237.13	205.14	196.78	196.49	197.37	197.23	205.43	200.06	5.60
143.0452	237.28	204.68	196.77	196.5	197.29	197.21	205.38	200.03	5.61
143.545	237	205.55	196.81	196.52	197.38	197.24	205.52	200.02	5.60
144.0457	237.04	204.31	196.76	196.49	197.39	197.22	205.41	199.92	5.60
144.5455	236.86	205.52	196.74	196.48	197.39	197.23	205.58	200.34	5.65
145.0453	237.01	204.63	196.86	196.59	197.48	197.32	205.87	200.32	5.62
145.5452	237.28	204.47	196.86	196.59	197.45	197.29	205.79	200.43	5.56
146.045	237.27	203.58	196.85	196.58	197.44	197.3	205.75	200.3	5.57
146.5438	237.26	205.84	196.84	196.57	197.44	197.28	205.71	200.28	5.59
147.0455	237.08	205.27	196.8	196.55	197.41	197.27	205.67	200.15	5.61
147.5445	237.21	204.81	196.81	196.56	197.42	197.26	205.63	200.12	5.62
148.0443	236.97	202.79	196.83	196.55	197.42	197.28	205.69	200.13	5.60
148.545	237.06	205.09	196.82	196.55	197.43	197.27	205.7	200.11	5.62
149.0448	237.19	206.01	196.82	196.55	197.41	197.27	205.67	200.08	5.64
149.5455	237.43	204.28	196.83	196.58	197.44	197.28	205.74	200.03	5.59
150.0453	237.35	204.94	196.85	196.56	197.44	197.3	205.72	200.06	5.55
150.5452	237.33	205.88	196.84	196.57	197.45	197.3	205.72	200.04	5.56
151.045	237.02	205.24	196.75	196.49	197.33	197.2	205.47	200.29	5.59
151.5448	237.09	205.91	196.85	196.58	197.48	197.32	205.84	200.3	5.60
152.0455	236.99	205.11	196.87	196.62	197.5	197.34	205.9	200.39	5.60
152.5453	237.08	205.38	196.88	196.59	197.47	197.34	205.82	200.36	5.62
153.0443	237.27	204.87	196.86	196.59	197.56	197.33	205.95	200.34	5.62
153.5442	237.27	205.02	196.89	196.62	197.49	197.35	205.95	200.27	5.63
154.0448	237.19	204.54	196.87	196.6	197.48	197.34	205.94	200.2	5.57

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.5447	237.07	205.94	196.88	196.61	197.49	197.34	205.86	200.13	5.57
155.0455	237.31	203.6	196.85	196.56	197.46	197.31	205.77	200.07	5.57
155.5453	237.26	203.67	196.83	196.58	197.46	197.32	205.79	200.08	5.60
156.045	237.21	205.31	196.86	196.57	197.45	197.32	205.79	200.1	5.60
156.5448	237.23	205.04	196.83	196.57	197.43	197.29	205.82	198.41	5.60
157.0457	236.95	205.75	196.78	196.53	197.31	197.3	205.69	200.28	5.62
157.5455	237.22	203.5	196.83	196.6	197.46	197.32	205.87	200.3	5.64
158.0453	237.33	204.41	196.86	196.59	197.48	197.34	205.84	200.31	5.61
158.5452	237.37	204.09	196.86	196.61	197.49	197.35	205.99	200.43	5.57
159.045	237.32	204.35	196.87	196.62	197.49	197.33	205.98	200.19	5.55
159.5457	237.13	204.39	196.83	196.57	197.44	197.32	205.8	199.91	5.57
160.0445	237.24	205.52	196.8	196.55	197.43	197.27	205.71	199.99	5.60
160.5443	237.16	205.53	196.81	196.54	197.42	197.27	205.61	199.95	5.60
161.0452	237.22	206.2	196.8	196.53	197.44	197.28	205.64	199.96	5.60
161.545	237.28	207.52	196.8	196.53	197.41	197.27	205.62	199.93	5.61
162.0457	237.43	206.24	196.81	196.54	197.43	197.29	205.58	199.89	5.61
162.5455	237.29	204.4	196.81	196.54	197.44	197.29	205.69	199.86	5.63
163.0453	237.35	203.69	196.81	196.56	197.42	197.3	205.64	199.93	5.57
163.5452	237.51	205.27	196.78	196.55	197.43	197.28	205.61	199.91	5.56
164.045	237.21	206.28	196.8	196.56	197.41	197.29	205.66	199.89	5.58
164.5448	237.07	205.66	196.7	196.43	197.31	197.17	205.28	200.27	5.58
165.0455	237.27	204.42	196.78	196.53	197.41	197.28	205.57	200.09	5.60
165.5453	237.1	205.58	196.85	196.57	197.46	197.34	205.92	200.38	5.61
166.0443	237.05	203.95	196.86	196.59	197.47	197.34	205.87	200.29	5.62
166.545	237.34	204.58	196.85	196.58	197.49	197.37	205.92	200.23	5.64
167.0448	237.27	205.73	196.85	196.6	197.48	197.35	205.94	200.21	5.61
167.5455	237.35	205.22	196.86	196.59	197.47	197.32	205.8	200.05	5.57
168.0453	237.37	206.85	196.84	196.58	197.45	197.33	205.8	199.97	5.56
168.5452	237.29	207.68	196.83	196.58	197.46	197.33	205.78	200	5.60
169.045	237.45	206.25	196.83	196.55	197.44	197.3	205.75	199.99	5.60
169.5448	237.37	206.61	196.82	196.57	197.45	197.32	205.79	199.94	5.60
170.0455	237.3	206.28	196.82	196.57	197.45	197.31	205.75	199.98	5.61
170.5453	237.38	205.41	196.83	196.56	197.46	197.31	205.75	199.94	5.64
171.0452	237.49	206.91	196.83	196.55	197.46	197.34	205.71	199.97	5.64
171.545	237.14	207.31	196.82	196.55	197.45	197.32	205.76	199.99	5.58
172.044	237.03	207.03	196.84	196.56	197.45	197.31	205.73	199.89	5.57
172.5457	237.18	206.5	196.74	196.49	197.4	197.24	205.62	199.75	5.58
173.0455	237.2	206.84	196.78	196.53	197.44	197.32	205.7	199.77	5.61
173.5443	237.44	206.08	196.84	196.57	197.47	197.34	205.8	200.29	5.60
174.045	237.11	205.8	196.88	196.61	197.42	197.36	205.98	200.15	5.61
174.5448	237.07	205.73	196.85	196.58	197.46	197.35	205.73	199.91	5.62
175.0457	237.1	205.89	196.8	196.53	197.41	197.3	205.61	199.8	5.62
175.5455	237.33	206.36	196.77	196.52	197.41	197.29	205.66	199.81	5.59
176.0453	237.19	206.24	196.79	196.54	197.43	197.31	205.65	199.89	5.56

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.5452	237.47	206.16	196.79	196.54	197.44	197.31	205.69	199.9	5.55
177.045	237.51	207.38	196.78	196.53	197.43	197.3	205.73	199.88	5.58
177.5457	237.62	205.31	196.8	196.54	197.41	197.29	205.62	199.86	5.59
178.0455	237.68	204.99	196.81	196.54	197.43	197.31	205.65	199.88	5.60
178.5453	237.59	206.39	196.8	196.55	197.42	197.3	205.68	199.81	5.62
179.0442	237.44	206.34	196.8	196.53	197.44	197.3	205.6	199.84	5.62
179.544	237.15	207.55	196.71	196.46	197.36	197.22	205.45	199.9	5.64
180.0448	237.34	206.19	196.75	196.5	197.4	197.27	205.54	199.88	5.61
180.5447	237.52	206.95	196.79	196.56	197.44	197.33	205.9	200.17	5.56
181.0453	237.35	207.45	196.85	196.6	197.48	197.37	205.98	200.23	5.57
181.5452	237.32	207.33	196.87	196.62	197.5	197.38	206	200.19	5.60
182.045	237.28	208.16	196.84	196.57	197.49	197.35	205.83	199.92	5.62
182.5448	237.18	207.29	196.83	196.56	197.44	197.33	205.74	199.83	5.61
183.0455	237.35	206.47	196.8	196.51	197.43	197.3	205.64	199.9	5.63
183.5453	237.24	207.37	196.82	196.55	197.45	197.34	205.76	199.91	5.65
184.0452	237.44	208.8	196.81	196.57	197.45	197.34	205.74	199.95	5.62
184.544	237.36	209.63	196.83	196.56	197.47	197.35	205.82	199.93	5.59
185.0448	237.47	207.27	196.82	196.55	197.46	197.33	205.84	199.87	5.60
185.5447	237.49	207.2	196.82	196.55	197.45	197.32	205.87	199.93	5.62
186.0445	237.3	206.46	196.84	196.56	197.45	197.32	205.78	199.89	5.61
186.5452	237.52	205.82	196.79	196.54	197.44	197.33	205.75	199.92	5.63
187.045	237.34	205.68	196.72	196.49	197.39	197.28	205.65	200.19	5.65
187.5448	237.44	205.11	196.84	196.57	197.46	197.36	205.92	200.19	5.65
188.0455	237.35	206.94	196.84	196.59	197.49	197.38	205.96	200.26	5.59
188.5453	237.45	207.35	196.86	196.59	197.51	197.4	206.12	200.19	5.59
189.0452	237.18	207.02	196.87	196.6	197.48	197.37	205.97	200.05	5.61
189.545	237.29	207.86	196.82	196.55	197.43	197.3	205.67	199.8	5.62
190.044	237.44	207.83	196.78	196.5	197.41	197.3	205.62	199.81	5.60
190.5465	237.57	209.09	196.79	196.54	197.45	197.31	205.75	199.96	5.63
191.0455	237.52	209.52	196.83	196.6	197.49	197.38	206.05	200.58	5.65
191.5443	237.02	206.91	196.9	196.65	197.55	197.42	206.25	200.43	5.63
192.045	237.26	207.85	196.89	196.6	197.46	197.41	206.12	200.21	5.59
192.5448	237.41	208.55	196.88	196.59	197.5	197.38	205.93	200.08	5.56
193.0447	237.5	205.83	196.84	196.59	197.51	197.37	206.06	200.13	5.63
193.5455	237.4	206	196.87	196.6	197.49	197.39	205.99	200.12	5.60
194.0453	237.4	208.38	196.8	196.48	197.23	197.19	204.86	199.17	5.62
194.5452	237.57	209.34	196.8	196.55	197.48	197.36	205.98	200.4	5.65
195.045	237.82	209.13	196.86	196.61	197.53	197.42	206.21	200.43	5.65
195.5457	237.65	208.34	196.9	196.67	197.55	197.44	206.32	200.6	5.59
196.0455	237.79	206.31	196.92	196.67	197.57	197.46	206.33	200.4	5.57
196.5453	237.4	205.16	196.93	196.68	197.64	197.46	206.3	200.36	5.60
197.0442	237.35	205.61	196.88	196.61	197.5	197.38	205.98	199.93	5.61
197.545	237.23	207.73	196.83	196.56	197.47	197.35	205.84	200.08	5.59
198.0448	237.27	209.33	196.83	196.6	197.48	197.37	205.99	200.21	5.60

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.5455	237.31	207.02	196.87	196.62	197.48	197.41	206.16	200.31	5.61
199.0453	237.42	206.45	196.87	196.62	197.52	197.41	206.11	200.27	5.63
199.5452	237.62	208.48	196.88	196.63	197.5	197.4	206.26	200.21	5.59
200.045	237.39	207.93	196.88	196.63	197.47	197.42	206.11	200.22	5.57
200.5448	237.67	207.11	196.85	196.58	197.49	197.4	206.08	200.1	5.56
201.0455	237.47	209.38	196.87	196.58	197.46	197.36	205.86	198.33	5.61
201.5453	237.48	210.23	196.77	196.52	197.43	197.31	205.72	200.31	5.59
202.0452	237.57	210.13	196.84	196.61	197.51	197.42	206.08	200.4	5.61
202.544	237.72	209.92	196.9	196.65	197.53	197.42	206.29	200.52	5.60
203.0438	237.7	209.78	196.9	196.67	197.57	197.48	206.43	200.5	5.63
203.5447	237.65	208.49	196.93	196.66	197.59	197.45	206.34	200.34	5.61
204.0445	237.1	209.43	196.88	196.63	197.5	197.4	206.05	199.95	5.58
204.5452	237.18	209.91	196.84	196.56	197.45	197.36	205.83	199.91	5.58
205.045	237.36	208.13	196.81	196.56	197.44	197.37	205.87	200.04	5.60
205.5448	237.49	208.4	196.85	196.58	197.5	197.39	206.06	200.25	5.60
206.0455	237.69	208.01	196.87	196.62	197.5	197.41	206.12	200.27	5.61
206.5453	237.78	208.69	196.88	196.63	197.54	197.42	206.17	200.19	5.60
207.0452	237.52	210.11	196.86	196.61	197.51	197.42	206.08	200.17	5.61
207.545	237.38	209.74	196.87	196.62	197.49	197.42	206.08	200.15	5.62
208.044	237.47	209.06	196.87	196.6	197.59	197.41	206.07	200.13	5.57
208.5457	237.62	209.5	196.84	196.59	197.5	197.4	206.01	200.18	5.56
209.0445	237.61	210.11	196.86	196.61	197.42	197.38	206.06	200.05	5.56
209.5453	237.41	210.08	196.85	196.6	197.49	197.4	205.98	200.02	5.60
210.045	237.52	209.24	196.83	196.58	197.48	197.37	205.94	200.01	5.59
210.5448	237.58	209.21	196.71	196.42	197.36	197.21	205.52	200.41	5.59
211.0457	237.73	209.42	196.82	196.57	197.47	197.36	205.9	200.05	5.59
211.5455	237.68	208.12	196.84	196.59	197.49	197.4	206.1	200.42	5.61
212.0453	237.88	209.58	196.88	196.65	197.65	197.46	206.38	200.56	5.62
212.5452	237.59	210.15	196.94	196.69	197.6	197.49	206.44	200.44	5.58
213.045	237.58	210.48	196.89	196.62	197.5	197.41	206.06	199.85	5.56
213.5457	237.4	210.18	196.8	196.53	197.43	197.34	205.73	199.85	5.56
214.0455	237.5	210.48	196.83	196.57	197.47	197.38	206.04	200.28	5.59
214.5443	237.61	210.49	196.88	196.61	197.53	197.42	206.21	200.21	5.60
215.0452	237.67	210.69	196.89	196.63	197.55	197.42	206.22	200.29	5.58
215.545	237.33	211.09	196.89	196.62	197.53	197.43	206.16	200.27	5.60
216.0448	237.67	211.29	196.86	196.62	197.52	197.41	206.24	200.17	5.62
216.5455	237.66	211.42	196.88	196.63	197.52	197.43	206.15	200.12	5.64
217.0453	237.93	211.28	196.86	196.61	197.53	197.42	206.15	200.19	5.59
217.5452	237.63	210.87	196.89	196.63	197.53	197.42	206.16	200.19	5.56
218.045	237.67	210.94	196.87	196.62	197.5	197.41	206.11	200.11	5.57
218.5448	237.64	211.09	196.86	196.61	197.52	197.41	206.08	200.15	5.59
219.0455	237.6	211.23	196.86	196.59	197.43	197.41	206.09	200.1	5.59
219.5453	237.73	211.43	196.86	196.59	197.51	197.4	206.11	200.17	5.59

Table B4. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
220.0443	237.83	211.3	196.87	196.62	197.51	197.4	206.09	200.08	5.59
220.545	237.7	211.39	196.87	196.6	197.5	197.41	206.07	200.1	5.63
221.0448	237.71	211.27	196.85	196.59	197.5	197.39	206.09	200.01	5.63
221.5455	237.53	211.59	196.84	196.57	197.47	197.38	206.01	200.03	5.58
222.0453	237.3	211.52	196.84	196.58	197.49	197.38	206.04	199.96	5.57
222.5452	237.47	211.81	196.67	196.38	197.33	197.21	205.34	199.88	5.58
223.045	237.68	211.74	196.73	196.47	197.39	197.28	205.59	200.11	5.60
223.5448	238.01	211.89	196.82	196.57	197.48	197.39	206.15	200.37	5.59
224.0455	237.93	212.11	196.86	196.66	197.57	197.49	206.55	200.8	5.58
224.5453	237.77	211.79	196.97	196.74	197.65	197.54	206.79	200.91	5.61
225.0443	237.86	211.76	196.99	196.72	197.63	197.53	206.65	200.59	5.64
225.5442	237.68	212.03	196.94	196.67	197.58	197.48	206.44	200.33	5.62
226.0448	237.81	212.11	196.87	196.6	197.52	197.41	206.1	200.08	5.57
226.5447	237.78	212.29	196.86	196.61	197.52	197.41	206.13	200.23	5.57
227.0455	236.94	212.25	196.9	196.61	197.56	197.45	206.32	200.39	5.59
227.5452	237.09	212.33	196.92	196.65	197.56	197.47	206.48	200.45	5.61
228.045	237.22	210.22	196.92	196.69	197.58	197.48	206.41	200.37	5.61
228.5448	237.2	210.76	196.92	196.69	197.59	197.48	206.46	200.33	5.61
229.0457	237.33	211.84	196.95	196.68	197.57	197.46	206.42	200.38	5.65
229.5455	237.32	212.31	196.93	196.68	197.58	197.47	206.43	200.32	5.65
230.0443	237.46	212.26	196.93	196.67	197.58	197.47	206.38	200.47	5.58
230.5442	237.77	212.37	196.9	196.65	197.55	197.46	206.5	200.33	5.57
231.045	237.42	211.06	196.92	196.65	197.57	197.48	206.41	200.32	5.59
231.5447	237.63	211.57	196.91	196.62	197.55	197.44	206.35	200.26	5.61
232.0455	237.71	212.56	196.91	196.64	197.56	197.47	206.34	200.26	5.61
232.5453	237.61	212.88	196.77	196.47	197.36	197.24	205.29	199.04	5.62
233.0452	237.72	212.85	196.67	196.4	197.31	197.22	205.36	199.67	5.62
233.545	237.83	212.71	196.76	196.55	197.44	197.37	206.03	200.36	5.62
234.0457	237.96	212.52	196.89	196.69	197.57	197.48	206.52	200.82	5.59
234.5455	237.96	212.57	197	196.73	197.65	197.55	206.83	200.91	5.55
235.0453	237.75	212.7	197	196.74	197.63	197.56	206.73	200.62	5.58
235.5442	237.61	211.4	196.95	196.67	197.56	197.49	206.36	200.2	5.61
236.045	237.4	211.76	196.85	196.6	197.48	197.4	206.02	200.02	5.61
236.5448	237.51	212.48	196.85	196.6	197.51	197.41	206.16	200.2	5.60
237.0455	237.49	212.54	196.89	196.64	197.5	197.43	206.29	200.35	5.60
237.5453	237.46	212.77	196.93	196.66	197.59	197.48	206.44	200.47	5.63
238.0452	237.16	211.56	196.95	196.66	197.58	197.49	206.51	200.45	5.59
238.545	237.18	210.86	196.92	196.65	197.47	197.47	206.32	200.27	5.56
239.0448	237.65	212.25	196.87	196.63	197.53	197.44	206.34	200.26	5.56
239.5455	237.97	212.78	196.89	196.62	197.46	197.46	206.3	200.37	5.59
240.0453	237.89	212.95	196.89	196.64	197.55	197.46	206.4	200.3	5.59

Table B5-Temperature and production data for run 5

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
4.93E-02	236.77	65.75	62.44	64.01	62.12	53.22	298.01	199.8	5.61
0.5455	228.38	179.04	62.45	64.19	62.13	53.29	205.27	200.25	5.62
1.045333	234.59	195.72	62.42	64.15	62.1	53.28	205.05	200.06	5.61
1.545167	238.16	199.24	62.45	64.16	62.13	53.31	205.28	200.04	5.56
2.045	240.03	199.34	62.39	64.11	62.07	53.28	205.19	199.9	5.54
2.544833	240.83	200	62.38	64.06	62.1	53.31	205.14	200.5	5.55
3.0455	241.15	199.68	62.37	64.07	62.07	53.28	205.96	200.7	5.58
3.546333	240.87	200.26	62.38	64.05	62.06	53.29	205.63	200.44	5.59
4.045167	240.13	199.84	62.35	64.04	62.05	53.28	205.35	200.3	5.59
4.544167	238.86	199.5	62.36	64.03	62.04	53.27	205.51	200.32	5.60
5.044833	237.01	199.02	62.37	64.06	62.07	53.28	205.36	200.23	5.62
5.544667	234.65	198.69	62.38	64.07	62.08	53.29	205.39	200.21	5.60
6.045333	232.53	198.47	62.41	64.08	62.07	53.32	205.48	200.14	5.56
6.545166	230.95	198.35	62.44	64.09	62.1	53.33	205.41	200.12	5.56
7.045	230.63	198.02	62.49	64.08	62.11	53.34	205.35	200.11	5.58
7.544833	231.04	198.3	62.5	64.1	62.08	53.33	205.2	200.04	5.60
8.045667	231.48	198.92	62.56	64.1	62.11	53.36	205.37	200.07	5.58
8.545333	231.54	199.14	62.63	64.14	62.06	53.37	205.37	200.1	5.58
9.045167	231.17	199.18	62.71	64.1	62.11	53.36	205.41	200.05	5.60
9.544168	230.63	198.92	62.82	64.09	62.06	53.39	205.35	199.99	5.61
10.04483	230.1	197.95	62.96	64.11	62.13	53.4	205.28	199.94	5.57
10.54567	230.05	198.44	63.1	64.09	62.14	53.39	205.38	200	5.57
11.0445	231.64	197.84	63.26	64.08	62.11	53.34	206.4	200.93	5.56
11.54533	233.17	199.8	63.5	64.08	62.02	53.39	206.11	200.76	5.58
12.045	234.21	199.24	63.71	64.07	62.11	53.36	205.91	200.56	5.59
12.54483	234.74	200.12	64.01	64.08	62.1	53.37	206.13	200.52	5.60
13.04567	234.66	200.72	64.38	64.09	61.99	53.4	205.93	200.5	5.61
13.5455	234.38	199.33	64.71	64.08	62.1	53.37	205.97	200.41	5.65
14.04533	233.67	200.04	65.11	64.09	62.13	53.41	205.95	200.49	5.61
14.54417	232.93	199.6	65.52	64.1	61.96	53.38	206.07	200.36	5.57
15.044	232.9	200.27	65.96	64.09	62.09	53.41	206.22	200.38	5.56
15.54467	233.54	201.35	66.56	64.1	62.11	53.4	206.39	200.42	5.60
16.0445	233.83	200.59	67.21	64.11	62.1	53.37	206.49	200.44	5.59
16.54533	233.7	201.68	68.03	64.12	62.11	53.4	206.54	200.45	5.60
17.04517	233.35	202.47	69.01	64.11	62.06	53.39	206.69	200.42	5.60
17.545	232.96	202.27	70.27	64.13	62.05	53.42	206.6	200.32	5.64
18.04567	232.65	201.59	71.61	64.14	62.08	53.43	206.4	200.18	5.60
18.5455	232.69	202.48	72.96	64.17	62.09	53.46	206.47	200.09	5.57
19.04533	232.97	202	74.41	64.18	62.1	53.48	206.66	200.13	5.56
19.54417	233.39	202.42	76.13	64.11	62.03	53.4	206.76	200.18	5.59
20.045	233.77	200.91	78.22	64.14	61.98	53.42	206.73	200.13	5.60
20.54483	234.09	200.47	80.44	64.13	62.01	53.39	206.57	200.05	5.60
21.04467	234.25	200.28	82.75	64.14	62.02	53.44	206.55	200.01	5.60
21.54533	234.19	200.05	85.04	64.14	61.99	53.43	206.43	199.96	5.64

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
22.04517	234.14	201.37	87.25	64.13	62.01	53.4	206.39	199.94	5.61
22.545	234.12	200.14	89.48	64.16	62.02	53.45	206.54	200.02	5.56
23.04483	233.93	201.47	92	64.17	62.16	53.47	206.42	200.05	5.56
23.5455	233.72	201.21	95.11	64.2	62.06	53.48	206.53	200.06	5.58
24.04633	233.51	199.47	98.91	64.2	62.08	53.49	206.55	200.05	5.60
24.54517	233.23	199.85	103.25	64.19	61.87	53.46	206.6	200.08	5.60
25.04417	232.86	200.07	108.25	64.18	61.97	53.47	206.65	200.08	5.60
25.544	232.51	201.23	114.46	64.17	61.96	53.47	206.77	200.06	5.62
26.04567	232.14	200.5	123.24	64.23	62.08	53.5	206.96	200.08	5.62
26.5445	231.61	201.63	135.59	64.24	61.97	53.51	207.17	200.09	5.57
27.04517	231.8	200.94	149.34	64.25	61.96	53.52	207.43	200.15	5.55
27.545	233.78	201.65	160.67	64.26	61.95	53.53	207.56	200.14	5.56
28.04483	235.81	201.05	169.67	64.28	62.11	53.55	207.72	200.13	5.60
28.54567	237.21	202.27	176.54	64.27	61.97	53.48	207.85	200.09	5.59
29.0455	238.06	201.81	183.53	64.28	61.97	53.47	208.15	200.07	5.60
29.54533	238.54	203.13	190.01	64.19	61.92	53.34	208.23	200.08	5.61
30.045	238.85	202.02	193.39	64.18	61.93	53.33	208.26	200.06	5.63
30.544	238.87	202.62	194.99	64.15	61.94	53.3	208.18	200.03	5.57
31.04567	238.86	201.73	195.77	64.2	61.91	53.31	208.07	200.04	5.54
31.5455	238.92	202.24	196.22	64.2	61.95	53.34	207.91	200.02	5.55
32.04433	239.02	203.11	196.46	64.27	61.96	53.32	207.84	200.01	5.58
32.54517	239.1	202.47	196.61	64.27	61.95	53.31	207.68	199.99	5.59
33.04583	239.19	201.72	196.76	64.34	62.03	53.32	207.7	200	5.59
33.54467	239.27	200.91	196.79	64.4	62.09	53.33	207.67	199.98	5.59
34.0455	239.26	201.04	196.9	64.47	62.19	53.35	207.82	200.18	5.60
34.54533	239.25	203.28	196.94	64.57	62.28	53.42	207.86	200.16	5.61
35.04517	239.18	202.23	196.97	64.63	62.25	53.4	207.85	200.17	5.56
35.545	239.08	201.42	197.01	64.69	62.39	53.41	207.96	200.16	5.56
36.04567	238.95	201.23	197.04	64.78	62.43	53.4	208.05	200.14	5.57
36.5455	238.85	201.61	197.04	64.9	62.5	53.39	208.09	200.14	5.59
37.04533	238.62	200.76	197.07	65	62.56	53.41	208.17	200.14	5.59
37.54417	238.43	202.29	197.09	65.12	62.64	53.44	208.25	200.14	5.59
38.044	238.17	201.65	197.13	65.26	62.69	53.41	208.37	200.15	5.60
38.54483	237.9	203.5	197.14	65.38	62.62	53.42	208.46	200.13	5.61
39.04467	237.7	202.57	197.2	65.55	62.76	53.38	208.64	200.14	5.61
39.54633	237.47	202.83	197.22	65.77	62.88	53.39	208.82	200.12	5.56
40.04517	237.19	202.89	197.3	65.98	62.94	53.4	209.03	200.14	5.56
40.545	236.94	202.14	197.31	66.24	62.96	53.37	209.24	200.14	5.57
41.04567	236.73	203.76	197.35	66.53	63.03	53.39	209.29	200.13	5.60
41.5455	236.67	203.03	197.38	66.87	63.06	53.38	209.3	200.14	5.60
42.04533	236.75	202.22	197.36	67.29	63.08	53.37	209.29	200.11	5.61
42.54517	236.91	205.03	197.35	67.88	63.1	53.37	209.26	200.11	5.63
43.045	237.14	203.52	197.34	68.68	63.04	53.38	209.19	200.14	5.63
43.54483	237.32	204.29	197.34	69.8	63.21	53.4	209.21	200.1	5.58

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
44.04567	237.58	203.85	197.35	71.29	63.26	53.45	209.25	200.09	5.56
44.5445	237.83	205.38	197.38	73.32	63.3	53.51	209.35	200.09	5.57
45.04433	238.04	203.56	197.38	75.95	63.36	53.67	209.44	200.09	5.59
45.545	238.2	203.06	197.39	79.39	63.39	53.83	209.5	200.11	5.58
46.04483	238.33	203.78	197.39	83.53	63.43	53.99	209.5	200.12	5.60
46.54567	238.5	203.41	197.4	88.51	63.48	54.13	209.53	200.2	5.60
47.0455	238.56	203.94	197.44	94.01	63.5	54.25	209.62	200.33	5.62
47.54533	238.53	203.86	197.45	100.06	63.55	54.39	209.75	200.47	5.57
48.045	238.55	202.46	197.49	106.08	63.57	54.51	209.86	200.61	5.55
48.544	238.58	203.92	197.51	112.25	63.6	54.65	209.97	200.72	5.55
49.04567	238.53	202.57	197.53	118.65	63.62	54.73	210.1	200.73	5.59
49.5445	238.43	204.07	197.58	125.32	63.63	54.81	210.2	200.71	5.60
50.04533	238.29	203.04	197.62	132.42	63.54	54.93	210.37	200.68	5.60
50.54517	238.23	203.19	197.62	138.89	63.68	55.05	210.54	200.65	5.61
51.045	238.09	205.11	197.68	145.08	63.7	55.15	210.85	200.61	5.63
51.54567	237.97	204.96	197.76	151.31	63.75	55.25	211.12	200.71	5.61
52.0455	237.9	204.66	197.8	157.95	63.75	55.37	211.3	200.63	5.56
52.54533	237.76	204.68	197.83	164.45	63.79	55.47	211.49	200.61	5.55
53.04517	237.66	204.89	197.85	170.34	63.84	55.61	211.64	200.57	5.56
53.544	237.53	206.84	197.91	175.63	63.77	55.75	211.74	200.54	5.60
54.04567	237.58	205.97	197.91	180.09	63.93	55.85	211.81	200.53	5.59
54.54467	237.57	205.2	197.92	183.47	63.97	55.97	211.86	200.52	5.60
55.04433	237.61	206.66	197.92	185.99	64.03	56.09	211.85	200.49	5.60
55.54517	237.73	206.42	197.91	188.29	64.08	56.21	211.87	200.47	5.63
56.045	237.95	205.47	197.9	189.71	64.1	56.33	211.83	200.65	5.58
56.54483	237.67	206.3	197.69	192.31	64.14	56.47	210.51	201.2	5.56
57.0455	237.98	205.57	197.7	193.52	64.19	56.61	210.92	201.07	5.57
57.54533	238.39	205.08	197.81	193.65	64.23	56.67	211.58	201.02	5.60
58.04617	238.63	205.24	197.92	194.02	64.31	56.77	211.97	201	5.61
58.545	238.76	207.13	197.96	194.54	64.39	56.87	212.09	200.97	5.61
59.04383	238.77	205.38	197.97	194.99	64.49	56.97	212.09	200.95	5.61
59.54467	238.83	205.06	197.96	195.38	64.61	57.06	212.01	200.9	5.64
60.04533	238.8	205.03	197.96	195.69	64.77	57.17	211.9	200.89	5.59
60.54517	238.78	205.2	197.91	195.98	64.92	57.24	211.83	200.86	5.56
61.045	238.63	204.59	197.81	196.25	65.16	57.37	211.22	201.13	5.57
61.54483	238.67	204.98	197.8	196.47	65.39	57.45	211.29	201.03	5.61
62.04567	238.73	206.68	197.82	196.67	65.7	57.54	211.46	200.96	5.60
62.54533	238.71	205	197.86	196.8	66.04	57.6	211.68	200.97	5.60
63.04517	238.65	204.6	197.9	196.93	66.48	57.68	211.85	200.94	5.61
63.545	238.56	204.69	197.92	197.01	67.04	57.76	211.9	200.92	5.63
64.044	238.46	206.47	197.95	197.11	67.76	57.84	211.94	200.9	5.60
64.54567	238.46	205.31	197.91	197.16	68.63	57.94	211.95	200.9	5.57
65.0455	238.38	208.48	197.96	197.19	69.67	58.02	211.96	200.85	5.58
65.54533	238.31	206.47	197.94	197.24	70.9	58.12	212	200.84	5.61

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
66.045	238.34	205.76	197.97	197.27	72.38	58.21	212.03	200.81	5.60
66.54483	238.22	204.52	197.92	197.22	74.2	58.32	211.3	201.18	5.61
67.04567	238.06	209.54	197.76	197.13	75.79	58.39	211.04	200.95	5.63
67.5455	238.26	207	197.8	197.21	77.86	58.45	211.49	200.96	5.63
68.04533	238.5	205.88	197.91	197.34	80.32	58.51	211.91	200.93	5.58
68.54517	238.61	206.6	197.99	197.4	83.24	58.55	212.17	200.88	5.57
69.04501	238.63	206.36	197.98	197.46	86.59	58.62	212.28	200.87	5.59
69.54567	238.64	205.77	198	197.48	90.25	58.72	212.24	200.84	5.59
70.04633	238.68	207.37	197.99	197.47	94.07	58.8	212.16	200.82	5.59
70.54433	238.68	206.21	197.98	197.47	98.31	58.86	212.08	200.79	5.61
71.04417	238.71	209.97	197.94	197.44	102.74	58.92	212	200.76	5.61
71.54501	238.78	205	197.93	197.46	107.13	58.98	211.93	200.75	5.62
72.04483	238.79	206.21	197.93	197.45	111.28	59.04	211.91	200.73	5.57
72.5455	238.51	207.21	197.74	197.26	115.98	59.12	210.74	201.08	5.57
73.04533	238.56	206.63	197.69	197.21	119.34	59.15	210.83	200.94	5.59
73.54517	238.77	207.08	197.73	197.29	122.34	59.19	211.08	200.9	5.60
74.04501	238.97	208.02	197.79	197.33	125.47	59.2	211.37	200.89	5.60
74.54383	239.01	208.41	197.85	197.42	128.78	59.26	211.68	200.9	5.60
75.0455	239.01	205.2	197.87	197.46	132.06	59.32	211.83	200.85	5.62
75.5445	239.02	204.84	197.95	197.5	135.16	59.34	211.91	200.83	5.62
76.04517	238.97	203.11	197.92	197.49	138.09	59.42	211.94	200.81	5.58
76.54501	238.88	204.9	197.92	197.53	140.81	59.49	211.96	200.77	5.57
77.04483	238.87	206.5	197.93	197.51	143.25	59.57	211.96	200.77	5.57
77.5455	238.86	206.34	197.95	197.52	145.81	59.65	211.97	200.74	5.59
78.04533	238.82	205.54	197.95	197.54	148.09	59.76	212.08	200.7	5.60
78.54517	238.79	203.15	197.97	197.54	150.47	59.84	212.16	200.67	5.60
79.04501	238.64	205.48	197.91	197.5	153.54	59.94	211.52	201.06	5.62
79.54483	238.55	207.38	197.84	197.43	157.01	60.04	211.44	200.92	5.64
80.04567	238.63	207.51	197.86	197.45	159.56	60.12	211.68	200.89	5.58
80.5445	238.67	207.41	197.92	197.53	161.87	60.2	212	200.85	5.57
81.04433	238.76	206.61	197.98	197.58	164.2	60.32	212.26	200.84	5.59
81.54501	238.83	205.73	198.03	197.64	166.59	60.42	212.5	200.83	5.60
82.04483	238.82	206.44	198.06	197.68	168.93	60.56	212.64	200.79	5.61
82.54567	238.84	205.38	198.1	197.7	171.42	60.71	212.73	200.81	5.60
83.0455	238.81	204.69	198.08	197.73	173.83	60.85	212.79	200.76	5.63
83.54533	238.75	206.4	198.09	197.73	176.5	61.01	212.77	200.76	5.63
84.04501	238.82	204.56	198.09	197.73	179.39	61.14	212.78	200.74	5.57
84.544	238.48	205.49	197.92	197.54	187.2	61.36	211.63	201.01	5.56
85.04567	238.54	203.58	197.89	197.51	189.05	61.51	211.76	200.87	5.58
85.5445	238.72	204.76	197.93	197.53	190.37	61.69	212.07	200.87	5.61
86.04433	238.87	205.99	198	197.64	191.1	61.92	212.41	200.84	5.61
86.54517	238.97	206.08	198.06	197.7	192.33	62.17	212.63	200.82	5.61
87.04501	239.01	204.54	198.1	197.71	193.67	62.51	212.76	200.78	5.63
87.54567	238.97	205.32	198.12	197.74	194.66	62.82	212.78	200.77	5.60

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.0455	239.01	205.63	198.09	197.77	195.3	63.17	212.81	200.77	5.56
88.54533	239	205.7	198.11	197.72	195.93	63.55	212.81	200.73	5.58
89.04517	239.02	205.35	198.1	197.74	196.34	63.97	212.77	200.72	5.60
89.544	238.99	205.96	198.06	197.74	196.77	64.44	212.7	200.71	5.61
90.04567	238.99	207.09	198.05	197.73	197.17	64.96	212.62	200.71	5.62
90.54467	239	207.99	198.04	197.71	197.46	65.53	212.57	200.66	5.62
91.04533	239.02	205.08	198.04	197.7	197.68	66.14	212.54	200.65	5.65
91.54517	238.93	204.61	197.97	197.63	197.79	66.86	212.19	200.94	5.59
92.04501	238.96	205.41	197.96	197.62	197.92	67.52	212.12	200.86	5.56
92.54483	239.05	206.79	197.94	197.62	198	68.21	212.17	200.84	5.58
93.0455	239.03	203.5	197.97	197.63	198.07	69.02	212.27	200.82	5.61
93.54533	239	205.04	197.97	197.65	198.13	69.95	212.27	200.8	5.62
94.04517	239.01	205.96	197.97	197.63	198.15	70.95	212.23	200.76	5.61
94.54417	238.54	205.05	197.82	197.46	197.96	72.24	211.02	200.84	5.63
95.04483	238.14	205.95	197.73	197.37	197.98	73.43	210.93	200.75	5.62
95.54467	237.91	206.35	197.72	197.41	198.06	74.69	211.18	200.77	5.57
96.04533	237.82	208.08	197.77	197.45	198.1	76.16	211.35	200.76	5.56
96.54517	237.8	205.37	197.79	197.47	198.13	77.81	211.42	200.73	5.57
97.04501	237.81	206.28	197.78	197.48	198.16	79.8	211.41	200.68	5.59
97.54483	237.83	206.34	197.77	197.46	198.16	82.04	211.29	200.67	5.58
98.04567	237.85	206.49	197.75	197.43	198.11	84.55	211.12	200.66	5.59
98.54533	237.44	205.63	197.5	197.16	197.79	87.57	209.57	200.83	5.60
99.04517	237.61	206.59	197.4	197.08	197.8	89.82	209.57	200.72	5.62
99.54417	237.85	205.55	197.42	197.12	197.85	92.13	209.84	200.79	5.59
100.0448	238.15	206.14	197.5	197.17	197.93	94.79	210.08	200.81	5.57
100.5447	238.25	204.68	197.52	197.21	197.97	97.78	210.24	200.79	5.56
101.0463	238.25	203.9	197.54	197.24	197.99	101.2	210.28	200.77	5.60
101.5453	238.31	204.1	197.53	197.22	197.96	105.01	210.21	200.76	5.60
102.045	238.31	205.46	197.51	197.19	197.94	109.24	210.1	200.73	5.60
102.5448	238.23	206.04	197.5	197.17	197.94	113.78	209.98	200.71	5.60
103.0457	238.01	205.22	197.36	197.04	197.73	119.33	209.14	200.82	5.63
103.5455	238.02	205.79	197.27	196.97	197.74	123.29	209.08	200.74	5.59
104.0453	238.02	205.12	197.31	196.99	197.78	126.81	209.22	200.76	5.56
104.5452	238.01	203.4	197.33	197.03	197.8	131.16	209.42	200.74	5.57
105.044	238.1	203.67	197.35	197.05	197.82	136.28	209.44	200.74	5.61
105.5457	238.16	203.71	197.34	197.05	197.8	141.4	209.42	200.75	5.60
106.0445	238.23	204.09	197.32	197.04	197.81	146.34	209.33	200.7	5.61
106.5453	238.13	205.03	197.24	196.9	197.51	151.63	207.9	200.96	5.60
107.0452	237.9	208.45	197.03	196.72	197.49	152.76	207.93	200.84	5.63
107.545	238.15	203.94	197.08	196.76	197.57	153.72	208.24	200.85	5.59
108.0467	238.37	204.47	197.14	196.84	197.64	154.75	208.62	200.85	5.57
108.5455	238.52	203.81	197.2	196.91	197.72	158.22	208.87	200.87	5.58
109.0453	238.57	205.12	197.24	196.95	197.74	163.12	208.97	200.84	5.60
109.5452	238.54	203.76	197.24	196.96	197.71	168.31	208.91	200.8	5.60

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.044	238.49	205.59	197.21	196.92	197.69	172.22	208.79	200.76	5.61
110.5448	238.46	206.47	197.18	196.89	197.66	175.44	208.67	200.74	5.63
111.0447	238.37	204	197.16	196.86	197.66	178.23	208.59	200.71	5.62
111.5445	237.97	207.34	196.93	196.61	197.36	182.07	207.19	200.87	5.58
112.0452	238.09	206.37	196.92	196.63	197.44	182.38	207.58	200.8	5.59
112.545	238.33	204.96	196.99	196.71	197.53	183.21	207.98	200.88	5.58
113.0448	238.51	204.05	197.05	196.76	197.57	184.2	208.2	200.84	5.62
113.5455	238.53	205.11	197.09	196.82	197.63	185.69	208.44	200.87	5.60
114.0453	238.55	207.99	197.13	196.84	197.65	187.86	208.47	200.83	5.61
114.5443	238.52	205.87	197.11	196.86	197.63	189.89	208.39	200.79	5.62
115.0442	238.45	206.62	197.1	196.81	197.6	191.63	208.26	200.74	5.62
115.5448	238.46	206.3	197.06	196.78	197.58	192.94	208.17	200.71	5.59
116.0447	238.1	204.48	196.87	196.57	197.37	193.13	207.23	200.83	5.56
116.5453	238.32	204.75	196.93	196.64	197.47	194.65	207.65	200.81	5.59
117.0452	238.5	205.35	196.99	196.7	197.52	195.32	207.86	200.84	5.60
117.545	238.51	206.21	197.01	196.7	197.53	195.68	207.89	200.82	5.60
118.0448	238.44	205.16	197.01	196.72	197.55	195.9	207.97	200.86	5.60
118.5457	238.51	204.68	197.01	196.74	197.53	196.13	207.97	200.81	5.63
119.0455	238.53	204.77	197.02	196.73	197.54	196.33	207.96	200.77	5.60
119.5453	238.5	203.61	197	196.71	197.54	196.46	207.86	200.74	5.56
120.045	238.47	204.4	196.97	196.7	197.52	196.57	207.77	200.7	5.56
120.544	238.49	204.87	196.99	196.69	197.49	196.67	207.76	200.66	5.59
121.0457	238.19	204.96	196.83	196.56	197.26	195.6	207.23	200.82	5.61
121.5455	238.39	205.43	196.91	196.64	197.48	196.66	207.6	200.82	5.60
122.0453	238.53	207.6	196.95	196.69	197.48	196.95	207.7	200.82	5.61
122.5452	238.64	209.57	196.97	196.7	197.52	197.04	207.71	200.85	5.64
123.045	238.68	205.45	196.95	196.66	197.49	197.09	207.69	200.78	5.65
123.5457	238.59	204.76	196.95	196.67	197.49	197.1	207.62	200.78	5.56
124.0455	238.58	204.4	196.95	196.67	197.51	197.15	207.64	200.77	5.55
124.5453	238.58	202.4	196.96	196.67	197.48	197.15	207.61	200.73	5.57
125.0452	238.53	203	196.93	196.66	197.46	197.16	207.56	200.69	5.59
125.544	238.51	205.79	196.91	196.6	197.32	197.02	207.04	199.6	5.60
126.0457	238.39	202.54	196.86	196.59	197.43	196.82	207.38	200.77	5.61
126.5447	238.52	201.95	196.93	196.65	197.4	197.2	207.65	200.82	5.62
127.0453	238.52	205.58	196.97	196.68	197.51	197.26	207.76	200.81	5.63
127.5452	238.56	205.1	196.97	196.67	197.51	197.26	207.69	200.81	5.56
128.045	238.55	203.48	196.96	196.67	197.48	197.26	207.61	200.77	5.57
128.5448	238.55	205.41	196.92	196.64	197.48	197.27	207.54	200.71	5.60
129.0455	238.46	205.7	196.93	196.64	197.47	197.23	207.44	200.67	5.61
129.5453	238.43	205.6	196.91	196.63	197.45	197.24	207.44	200.61	5.61
130.047	238.52	206.15	196.92	196.61	197.45	197.24	207.43	200.62	5.62
130.545	238.43	204.51	196.83	196.52	197.26	196.97	206.33	200.8	5.65
131.0448	238.4	203.35	196.83	196.58	197.44	196.69	207.36	200.74	5.60
131.5465	238.53	203.62	196.89	196.62	197.32	197.21	207.42	200.69	5.57

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.0453	238.59	203.17	196.93	196.66	197.5	197.3	207.67	200.78	5.59
132.5443	238.64	203.55	196.95	196.7	197.52	197.3	207.75	200.82	5.61
133.045	238.57	204.04	196.95	196.68	197.51	197.31	207.73	200.76	5.60
133.5448	238.47	203.7	196.93	196.67	197.49	197.31	207.59	200.7	5.59
134.0447	238.34	204.6	196.92	196.63	197.47	197.29	207.49	200.56	5.60
134.5453	238.4	203.51	196.89	196.62	197.44	197.26	207.44	200.51	5.62
135.0452	238.48	202.92	196.89	196.62	197.44	197.28	207.43	200.61	5.58
135.545	238.23	204.68	196.8	196.52	197.32	196.77	206.97	198.98	5.56
136.0448	238.46	204.31	196.88	196.61	197.48	197.22	207.52	200.74	5.57
136.5457	238.63	203.81	196.91	196.65	197.49	197.31	207.64	200.7	5.59
137.0455	238.74	202.64	196.97	196.68	197.54	197.4	207.8	200.78	5.60
137.5462	238.69	202.86	196.95	196.67	197.51	197.33	207.68	200.74	5.60
138.0442	238.6	204.14	196.92	196.63	197.48	197.32	207.54	200.73	5.61
138.5448	238.64	205.2	196.89	196.62	197.46	197.32	207.49	200.61	5.64
139.0457	238.59	206.42	196.87	196.62	197.45	197.3	207.42	200.57	5.57
139.5445	238.7	206.89	196.89	196.61	197.47	197.29	207.41	200.5	5.55
140.0453	238.65	207.41	196.88	196.61	197.45	197.29	207.45	200.51	5.58
140.5452	238.61	209.83	196.88	196.61	197.45	197.29	207.44	200.53	5.60
141.045	238.58	206.73	196.89	196.62	197.48	197.31	207.46	200.49	5.58
141.5457	238.47	204.67	196.9	196.64	197.46	197.32	207.47	200.47	5.60
142.0455	238.46	204.23	196.89	196.64	197.48	197.32	207.5	200.44	5.61
142.5453	238.53	207.83	196.87	196.62	197.46	197.3	207.5	200.43	5.63
143.0452	238.59	206.51	196.91	196.62	197.48	197.32	207.51	200.42	5.58
143.544	238.57	208.68	196.9	196.63	197.45	197.31	207.52	200.5	5.54
144.0457	238.61	207.62	196.92	196.63	197.49	197.33	207.54	200.39	5.56
144.5447	238.4	208.38	196.81	196.54	197.44	197.28	207.39	200.66	5.58
145.0453	238.62	209.76	196.88	196.62	197.48	197.35	207.58	200.65	5.59
145.5452	238.64	207.77	196.96	196.67	197.53	197.39	207.77	200.65	5.59
146.045	238.05	208.15	196.93	196.62	197.48	197.34	207.52	200.43	5.59
146.5448	237.57	205.99	196.89	196.62	197.47	197.31	207.46	200.47	5.61
147.0455	237.3	207.05	196.88	196.61	197.45	197.31	207.43	200.39	5.61
147.5453	237.12	210.81	196.86	196.61	197.45	197.31	207.41	200.47	5.56
148.0452	237.13	211.29	196.9	196.61	197.46	197.33	207.4	200.38	5.55
148.544	237.11	210.94	196.86	196.6	197.46	197.31	207.38	200.37	5.57
149.0448	237.19	209.81	196.87	196.6	197.46	197.3	207.4	200.42	5.60
149.5447	237.29	209.37	196.87	196.62	197.48	197.32	207.4	200.34	5.59
150.0453	237.3	208.33	196.89	196.62	197.47	197.32	207.42	200.36	5.61
150.5452	237.32	209	196.86	196.63	197.45	197.32	207.42	200.3	5.62
151.045	237.37	209.11	196.86	196.61	197.45	197.33	207.43	200.35	5.63
151.5448	237.45	208.68	196.88	196.63	197.47	197.33	207.46	200.33	5.57
152.0455	237.47	212.28	196.88	196.61	197.46	197.29	207.39	198.53	5.56
152.5453	237.31	211.46	196.81	196.58	197.46	197.3	207.35	200.27	5.57
153.0452	237.4	211.24	196.89	196.62	197.48	197.35	207.52	200.64	5.59
153.545	237.44	212.5	196.93	196.67	197.52	197.39	207.69	200.55	5.60

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.0448	237.4	211.55	196.91	196.64	197.5	197.36	207.56	200.45	5.58
154.5447	237.46	212.2	196.9	196.63	197.47	197.36	207.54	200.43	5.60
155.0455	237.55	212.63	196.9	196.63	197.47	197.34	207.52	200.45	5.63
155.5453	237.5	207.78	196.9	196.63	197.47	197.35	207.53	200.46	5.60
156.045	237.56	210.04	196.9	196.63	197.48	197.37	207.52	200.42	5.56
156.5448	237.52	212.87	196.9	196.62	197.48	197.35	207.56	200.39	5.55
157.0457	237.51	213.14	196.89	196.66	197.5	197.37	207.56	200.41	5.59
157.5455	237.58	211.68	196.89	196.64	197.48	197.36	207.61	200.44	5.60
158.0443	237.55	210.1	196.89	196.64	197.5	197.36	207.6	200.37	5.58
158.5452	237.5	210.93	196.89	196.64	197.5	197.36	207.59	200.41	5.60
159.045	237.59	213.56	196.9	196.65	197.51	197.38	207.64	200.31	5.63
159.5457	237.34	211.52	196.83	196.54	197.42	197.28	207.22	200.58	5.62
160.0455	237.52	208.41	196.87	196.62	197.49	197.37	207.63	200.63	5.56
160.5453	237.61	211.39	196.94	196.67	197.51	197.39	207.7	200.53	5.56
161.0452	237.58	210.53	196.91	196.66	197.5	197.35	207.58	200.44	5.58
161.545	237.53	212.23	196.89	196.62	197.5	197.36	207.6	200.47	5.60
162.0457	237.55	212.97	196.89	196.64	197.5	197.38	207.61	200.44	5.59
162.5455	237.53	211.2	196.93	196.64	197.5	197.36	207.64	200.38	5.60
163.0443	237.5	211.47	196.92	196.63	197.51	197.38	207.66	200.36	5.61
163.5452	237.47	209.45	196.92	196.65	197.53	197.38	207.67	200.34	5.63
164.045	237.41	210.61	196.92	196.65	197.51	197.39	207.67	200.34	5.58
164.5448	237.51	209.54	196.91	196.65	197.51	197.39	207.67	200.3	5.56
165.0455	237.51	207.94	196.92	196.66	197.52	197.39	207.68	200.32	5.57
165.5453	237.12	212.89	196.73	196.44	197.25	197.12	206.36	198.65	5.60
166.0452	237.24	214.18	196.68	196.43	197.34	197.23	207.03	200.55	5.60
166.544	237.64	214.49	196.89	196.64	197.52	197.4	207.8	200.61	5.60
167.0438	237.66	213.6	196.95	196.68	197.52	197.42	207.77	200.48	5.61
167.5447	237.54	214.69	196.9	196.65	197.49	197.38	207.6	200.43	5.63
168.0453	237.56	215.27	196.88	196.63	197.47	197.37	207.58	200.41	5.59
168.5452	237.59	215.57	196.9	196.63	197.51	197.39	207.65	200.41	5.57
169.045	237.65	215.65	196.91	196.65	197.51	197.39	207.7	200.38	5.58
169.5448	237.58	214.29	196.92	196.66	197.52	197.41	207.7	200.31	5.62
170.0455	237.53	214.49	196.91	196.66	197.52	197.39	207.72	200.27	5.59
170.5453	237.48	215.24	196.89	196.66	197.52	197.39	207.68	200.34	5.59
171.0452	237.55	213.04	196.91	196.64	197.52	197.4	207.71	200.31	5.60
171.5442	237.48	213.83	196.91	196.65	197.52	197.43	207.68	200.27	5.63
172.0448	236.93	215.09	196.63	196.34	197.1	197.01	205.65	198.11	5.58
172.5457	237.24	215.3	196.67	196.44	197.39	197.15	207.28	200.6	5.55
173.0445	237.52	215.7	196.89	196.6	197.51	197.37	207.69	200.52	5.57
173.5453	237.56	215.7	196.94	196.67	197.53	197.43	207.83	200.51	5.60
174.045	237.49	212.68	196.91	196.66	197.5	197.39	207.59	200.34	5.58
174.5448	237.44	212.66	196.89	196.61	197.47	197.36	207.55	200.35	5.59
175.0457	237.53	213.85	196.88	196.63	197.49	197.38	207.58	200.34	5.61
175.5455	237.55	216.05	196.88	196.63	197.5	197.38	207.62	200.3	5.64

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.0453	237.5	214.6	196.9	196.65	197.51	197.38	207.65	200.28	5.60
176.5442	237.54	212.42	196.9	196.61	197.49	197.39	207.64	200.25	5.57
177.045	237.49	214.36	196.92	196.63	197.49	197.39	207.69	200.24	5.58
177.5447	237.43	211.32	196.91	196.63	197.5	197.41	207.72	200.21	5.61
178.0455	237.38	211.41	196.89	196.64	197.5	197.39	207.67	200.24	5.59
178.5453	237.35	215.15	196.87	196.62	197.5	197.39	207.66	200.21	5.60
179.0452	237.35	215.73	196.89	196.64	197.52	197.4	207.68	200.17	5.61
179.545	237.32	215.92	196.89	196.63	197.47	197.4	207.64	200.11	5.62
180.0457	237.28	215.39	196.9	196.63	197.49	197.4	207.65	200.11	5.57
180.5455	237.21	212.92	196.9	196.63	197.51	197.4	207.65	200.01	5.55
181.0443	236.91	215.05	196.69	196.38	197.21	197.12	206.28	198.67	5.54
181.5442	237.22	213.39	196.67	196.4	197.37	197.24	207.09	200.51	5.59
182.045	237.62	213.18	196.87	196.64	197.51	197.41	207.83	200.64	5.60
182.5448	237.51	215.33	196.93	196.66	197.52	197.41	207.71	200.37	5.60
183.0455	237.55	211.3	196.89	196.64	197.5	197.39	207.68	200.42	5.59
183.5453	237.6	210.95	196.89	196.63	197.5	197.4	207.74	200.34	5.63
184.0462	237.59	212.72	196.91	196.61	197.52	197.4	207.74	200.3	5.60
184.5458	237.54	211.02	196.9	196.63	197.51	197.4	207.73	200.25	5.57
185.0448	237.36	210.78	196.92	196.65	197.53	197.42	207.71	200.21	5.56
185.5455	237.36	210.96	196.88	196.63	197.49	197.39	207.69	200.18	5.57
186.0453	237.27	211.32	196.91	196.64	197.5	197.39	207.67	200.17	5.59
186.5452	237.3	213.75	196.89	196.64	197.5	197.39	207.66	200.18	5.59
187.045	237.31	214.49	196.87	196.64	197.61	197.41	207.66	200.16	5.60
187.5448	237.28	213.24	196.89	196.63	197.5	197.39	207.68	200.1	5.62
188.0455	237.34	216.19	196.88	196.63	197.49	197.38	207.67	200.1	5.62
188.5453	237.36	215.27	196.88	196.63	197.49	197.4	207.68	200.06	5.56
189.0452	237.34	214.95	196.88	196.62	197.62	197.4	207.68	200.18	5.56
189.545	237.29	216.7	196.89	196.6	197.5	197.39	207.55	199.73	5.57
190.0467	237.01	217.21	196.71	196.44	197.28	197.18	206.73	198.92	5.60
190.5447	237.26	217.17	196.77	196.53	197.45	197.34	207.49	200.41	5.59
191.0455	237.5	217.84	196.91	196.66	197.52	197.45	207.82	200.44	5.59
191.5453	237.39	217.14	196.91	196.64	197.61	197.43	207.77	200.44	5.59
192.045	237.45	215.64	196.9	196.66	197.52	197.42	207.83	200.42	5.64
192.5448	237.41	215.48	196.9	196.65	197.51	197.42	207.83	200.29	5.59
193.0457	237.4	217.49	196.92	196.65	197.53	197.42	207.78	200.27	5.56
193.5455	237.4	214.2	196.89	196.65	197.51	197.41	207.76	200.25	5.58
194.0453	237.33	214.11	196.89	196.62	197.48	197.41	207.73	200.2	5.60
194.5442	237.42	212.18	196.89	196.62	197.5	197.39	207.73	200.18	5.61
195.045	237.42	214.28	196.89	196.64	197.5	197.4	207.74	200.18	5.60
195.5457	237.37	213.65	196.91	196.63	197.52	197.42	207.72	200.11	5.62
196.0455	237.43	215.85	196.9	196.63	197.51	197.4	207.71	200.1	5.63
196.5453	237.45	214.21	196.88	196.63	197.49	197.42	207.71	200.14	5.57
197.0452	237.27	211.44	196.83	196.56	197.42	197.32	207.38	200.35	5.57
197.545	237.42	213.36	196.89	196.64	197.53	197.44	207.88	200.46	5.60

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.0457	237.47	215.02	196.91	196.66	197.55	197.45	207.92	200.4	5.62
198.5465	237.53	215.04	196.91	196.66	197.52	197.43	207.86	200.24	5.62
199.0453	237.48	214.17	196.9	196.64	197.5	197.41	207.78	200.25	5.62
199.5442	237.48	216.86	196.88	196.63	197.52	197.42	207.77	200.23	5.64
200.045	237.45	217.73	196.86	196.63	197.49	197.42	207.77	200.14	5.59
200.5448	237.4	214.32	196.88	196.63	197.49	197.41	207.76	200.13	5.57
201.0455	237.36	213.41	196.89	196.64	197.5	197.41	207.76	200.15	5.58
201.5463	237.35	215.94	196.89	196.62	197.5	197.41	207.73	200.15	5.61
202.0452	237.42	216.51	196.87	196.61	197.48	197.39	207.73	200.08	5.59
202.545	237.44	216.28	196.88	196.61	197.49	197.38	207.71	200.12	5.60
203.0448	237.48	216.98	196.9	196.61	197.52	197.4	207.71	200.06	5.61
203.5455	237.07	213.05	196.68	196.38	197.22	197.11	206.35	199	5.63
204.0453	237.45	216.99	196.76	196.49	197.44	197.33	207.52	200.43	5.57
204.5443	237.65	217.78	196.9	196.64	197.51	197.46	207.9	200.43	5.58
205.0442	237.6	215.68	196.93	196.66	197.53	197.44	207.88	200.42	5.59
205.5448	237.57	217.94	196.91	196.64	197.55	197.45	207.89	200.34	5.61
206.0447	237.57	216.55	196.89	196.63	197.52	197.43	207.78	200.16	5.60
206.5453	237.48	216.73	196.9	196.63	197.5	197.43	207.71	200.12	5.61
207.0452	237.45	215.07	196.86	196.59	197.49	197.4	207.67	200.16	5.64
207.545	237.39	217.34	196.86	196.61	197.49	197.4	207.69	200.04	5.62
208.0448	237.38	217.93	196.88	196.6	197.47	197.42	207.69	200.09	5.57
208.5457	237.4	218.28	196.87	196.6	197.39	197.37	207.67	200.04	5.56
209.0455	237.29	218.35	196.85	196.58	197.35	197.37	207.7	199.99	5.60
209.5462	237.23	216.67	196.86	196.59	197.47	197.38	207.66	200.06	5.60
210.0442	237.12	214.17	196.8	196.5	197.34	197.27	206.92	200.19	5.59
210.5458	237.11	217.64	196.83	196.56	197.45	197.34	207.53	200.03	5.61
211.0457	237.25	218.4	196.85	196.61	197.49	197.4	207.82	200.47	5.63
211.5445	237.34	214.8	196.9	196.65	197.53	197.44	207.94	200.33	5.61
212.0453	237.29	214.54	196.9	196.62	197.48	197.39	207.73	200	5.56
212.5452	237.22	216.42	196.82	196.58	197.44	197.35	207.59	199.98	5.57
213.045	237.19	217.73	196.82	196.59	197.45	197.38	207.62	200.03	5.61
213.5457	237.17	217.1	196.82	196.59	197.45	197.36	207.62	200.02	5.60
214.0455	237.18	217.41	196.83	196.57	197.45	197.36	207.57	199.98	5.59
214.5462	237.16	217.77	196.83	196.58	197.44	197.35	207.6	199.96	5.60
215.0452	237.18	218.33	196.81	196.58	197.46	197.39	207.58	200	5.62
215.544	237.22	216.9	196.81	196.56	197.44	197.35	207.57	199.95	5.60
216.0457	237.26	215.61	196.82	196.58	197.44	197.34	207.56	199.9	5.56
216.5447	237.3	214.2	196.82	196.55	197.46	197.34	207.52	199.91	5.56
217.0453	237.37	215.81	196.82	196.57	197.45	197.36	207.55	199.96	5.59
217.5452	237.32	216.48	196.83	196.57	197.45	197.36	207.55	199.91	5.60
218.045	237.29	217.02	196.81	196.56	197.44	197.35	207.53	199.85	5.60
218.5448	236.91	216.31	196.67	196.4	197.22	197.13	206.47	198.3	5.61
219.0455	237.04	216.09	196.62	196.38	197.33	197.23	207.07	200.32	5.64

Table B5. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
219.5453	237.49	213.98	196.83	196.6	197.51	197.42	207.87	200.44	5.61
220.0452	237.38	216.15	196.87	196.62	197.5	197.41	207.79	200.39	5.57
220.544	237.42	213.2	196.87	196.62	197.5	197.41	207.85	200.29	5.57
221.0438	237.37	214.2	196.88	196.62	197.63	197.43	207.81	200.21	5.61
221.5447	237.32	212.13	196.86	196.61	197.49	197.4	207.7	200.07	5.60
222.0453	237.3	212.87	196.85	196.59	197.47	197.37	207.63	199.96	5.60
222.5452	237.29	212.89	196.85	196.58	197.48	197.37	207.63	200.01	5.62
223.045	237.18	215.83	196.83	196.58	197.46	197.37	207.64	200.04	5.65
223.5458	237.15	215.92	196.83	196.57	197.46	197.37	207.62	199.89	5.58
224.0455	237.1	212	196.84	196.59	197.46	197.38	207.63	199.92	5.56
224.5453	237.07	212.52	196.82	196.59	197.45	197.36	207.64	199.94	5.57
225.0452	237.09	214.83	196.84	196.56	197.45	197.38	207.59	199.89	5.59
225.545	236.89	212.12	196.72	196.47	197.35	197.26	207.18	200.01	5.59
226.044	237	212.23	196.76	196.47	197.4	197.31	207.37	199.82	5.59
226.5447	237.26	214.57	196.83	196.58	197.53	197.44	207.91	201.45	5.61
227.0445	237.46	213.3	197.03	196.78	197.68	197.6	208.69	201.28	5.63
227.5452	237.42	211.3	197.11	196.86	197.75	197.66	208.95	201.61	5.58
228.045	236.69	214.74	196.79	196.48	197.23	197.16	206.38	198.29	5.56
228.5448	236.57	214.13	196.54	196.27	197.15	197.06	206.26	198.74	5.58
229.0457	236.96	211.27	196.56	196.31	197.19	197.1	206.37	198.48	5.62
229.5455	236.93	214.07	196.51	196.26	197.12	197.03	206.08	198.24	5.60
230.0453	236.54	215.23	196.47	196.21	197.06	197.01	205.98	198.24	5.62
230.5442	236.43	215.77	196.46	196.19	197.07	197	205.97	198.16	5.64
231.044	236.67	212.36	196.44	196.19	197.07	196.98	205.93	198.09	5.63
231.5447	237.08	214.47	196.44	196.18	197.05	196.96	205.84	198.02	5.57
232.0455	237.46	215.65	196.41	196.14	197	196.95	205.71	197.94	5.58
232.5453	237.88	211.13	196.36	196.11	196.88	196.93	205.65	197.96	5.62
233.0452	238.11	212.21	196.36	196.09	196.99	196.9	205.53	197.72	5.61
233.545	238.29	212.96	196.35	196.08	196.96	196.87	205.39	197.73	5.61
234.0457	238.39	212.34	196.31	196.04	196.9	196.85	205.3	197.48	5.64
234.5455	238.3	211.28	196.28	196.01	196.89	196.82	205.19	197.32	5.64
235.0443	238.23	209.35	196.27	196	197.02	196.82	205.09	197.29	5.58

Table B6-Temperature and production data for run 6

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
0.5465	248.42	142.88	55.58	58.24	56.72	50.27	207.83	202.86	5.57
1.046167	248.98	187.26	55.54	58.28	56.76	50.33	206.3	202.458	5.55
1.546	249.95	192.86	55.56	58.24	56.78	50.33	205.1	201.282	5.55
2.046833	250.03	194.31	55.53	58.2	56.71	50.29	204.3	200.508	5.57
2.545667	249.33	195.17	55.53	58.21	56.71	50.28	204.28	200.511	5.59
3.0465	248.42	195.79	55.57	58.19	56.73	50.3	204.15	200.373	5.61
3.546333	246.97	195.88	55.57	58.21	56.73	50.32	204.24	200.457	5.60
4.046167	244.99	196.2	55.57	58.23	56.75	50.34	204.2	200.406	5.61
4.545833	242.61	196.29	55.61	58.25	56.79	50.34	204.11	200.388	5.62
5.045667	240.12	196.54	55.62	58.29	56.81	50.35	204.12	200.364	5.62
5.547333	237.35	196.28	55.66	58.3	56.82	50.35	204.17	200.445	5.57
6.046333	234.66	196.26	55.66	58.32	56.78	50.37	204.35	200.334	5.55
6.547	233.18	196.12	55.87	58.3	56.8	50.37	204.56	200.52	5.56
7.046	233.39	196.63	56.56	58.32	56.86	50.39	204.97	200.553	5.58
7.546667	236.53	196.84	57.15	58.29	56.84	50.38	204.89	200.502	5.58
8.0465	241.57	197.37	57.85	58.27	56.81	50.34	204.7	200.403	5.58
8.546334	244.73	197.83	58.46	58.23	56.83	50.34	204.87	200.277	5.58
9.046167	245.56	197.96	58.54	58.26	56.83	50.36	204.92	200.403	5.58
9.546	244.77	197.28	58.83	58.26	56.85	50.33	205.02	200.253	5.62
10.04667	242.8	197.25	59.76	58.3	56.85	50.39	205.4	200.376	5.64
10.5465	240.29	197.46	60.82	58.3	56.9	50.39	205.16	200.196	5.58
11.04633	237.92	197.25	61.75	58.28	56.88	50.3	205.3	200.181	5.56
11.54717	236.89	197.32	62.7	58.28	56.88	50.37	205.57	200.175	5.57
12.046	236.87	197.33	63.89	58.29	56.92	50.4	205.93	200.337	5.59
12.54583	236.71	197.02	65.03	58.29	56.92	50.42	205.94	200.193	5.60
13.0475	236.03	197.46	65.86	58.31	56.94	50.34	205.84	200.076	5.59
13.54633	235.89	196.94	66.36	58.31	56.95	50.42	205.96	200.043	5.58
14.04617	235.81	197.12	67.02	58.32	56.93	50.41	206.38	200.109	5.61
14.547	235.74	197.41	67.85	58.32	56.97	50.45	206.71	200.184	5.65
15.04583	235.45	197.81	68.57	58.3	56.97	50.45	206.91	200.175	5.60
15.5465	234.99	198.02	69.12	58.27	56.98	50.43	207.39	200.331	5.55
16.04733	234.51	197.7	70.16	58.29	56.92	50.45	208.53	200.523	5.55
16.54617	233.94	198.19	71.86	58.27	56.98	50.46	209.39	200.808	5.57
17.04783	233.4	198.59	73.12	58.25	56.94	50.44	209.97	200.808	5.61
17.54683	232.9	199.25	73.27	58.26	56.98	50.46	211.09	200.79	5.60
18.04667	232.53	199.83	73.86	58.24	57.02	50.48	212.01	200.733	5.60
18.5465	232.32	199.77	75.29	58.24	57.05	50.52	212.56	200.775	5.60
19.04717	232.26	200.29	77.65	58.22	57.05	50.5	212.99	200.805	5.63
19.546	232.25	200.17	80.47	58.23	57.07	50.51	212.69	200.658	5.63
20.04583	232.23	199.71	82.77	58.21	57.07	50.53	212.12	200.409	5.58
20.54567	232.45	199.19	84.21	58.13	56.99	50.45	211.61	200.184	5.57
21.0465	232.68	199.62	85.15	58.14	57.01	50.45	211.06	199.017	5.58
21.54633	232.97	198.94	85.58	58.14	57.09	50.45	210.79	201.318	5.62
22.047	233.29	198.85	85.17	58.08	57.15	50.44	211.23	201.351	5.62

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
22.54583	233.58	198.75	84.91	58.09	57.19	50.46	211.81	201.366	5.62
23.04567	233.66	199	84.89	58.07	57.23	50.44	212.05	201.447	5.63
23.5465	233.21	199.15	85.1	58.05	57.31	50.48	212.86	201.495	5.63
24.04633	232.78	198.99	85.4	58.07	57.35	50.46	213.08	201.585	5.59
24.547	232.46	199.56	85.76	58.05	57.37	50.48	213.47	201.63	5.57
25.046	232.3	199.13	86.13	58.03	57.39	50.45	213.57	201.423	5.56
25.54583	232.28	199.17	86.54	58.03	57.41	50.43	214.13	201.747	5.59
26.0465	233.66	199.67	87.05	58.03	57.45	50.43	214.83	201.726	5.61
26.54633	235.22	199.67	87.8	58.02	57.48	50.43	214.79	201.459	5.59
27.04617	235.62	199.97	88.62	58	57.52	50.45	214.51	201.441	5.59
27.54683	235.2	199.9	89.47	58.02	57.58	50.54	214.72	201.378	5.61
28.04667	234.56	199.94	90.55	58.04	57.6	50.64	215.1	200.421	5.64
28.5475	234.51	200.03	92.14	58.06	57.64	50.74	215.63	200.568	5.62
29.04633	234.4	200.07	94.26	58.06	57.68	50.83	216.12	200.517	5.58
29.54617	234.13	200.41	96.93	58.06	57.7	50.89	216.79	200.682	5.57
30.046	233.81	200.53	100.25	58.06	57.74	50.97	217.76	201.138	5.59
30.54583	233.49	201.16	104.47	58.08	57.72	51.04	218.86	201.225	5.62
31.0475	233.25	201.12	109.35	58.12	57.79	51.14	220.02	201.825	5.60
31.54633	233.43	202.06	113.93	58.15	57.81	51.31	220.9	200.925	5.61
32.04617	233.49	202.18	118.79	58.19	57.87	51.37	221.15	201.441	5.63
32.546	233.47	201.93	123.77	58.25	57.91	51.48	221.46	204.198	5.65
33.04583	233.56	202.63	128.25	58.29	57.96	51.58	222.57	207.855	5.61
33.5465	233.81	203.2	131.79	58.32	57.96	51.59	224.17	210.66	5.57
34.04733	234.24	202.88	134.42	58.38	57.96	51.54	227.15	221.343	5.57
34.54617	234.56	202.8	136.04	58.4	57.94	51.54	230.18	221.4	5.60
35.046	234.41	203.64	138.38	58.47	57.96	51.53	232.55	222.567	5.62
35.54583	234.09	203.87	141.12	58.53	57.96	51.57	234.32	224.298	5.59
36.04667	234.07	203.48	143.72	58.58	57.99	51.57	236.15	226.041	5.61
36.5465	231.69	203.78	146.13	58.6	57.94	51.53	239.19	227.898	5.62
37.04617	226.83	204.73	148.8	58.66	57.96	51.57	240.56	229.911	5.63
37.546	229.7	204.41	151.13	58.73	57.97	51.63	241.92	231.864	5.57
38.04583	231.6	205.07	153.16	58.79	57.99	51.64	243.13	211.281	5.56
38.54567	231.61	205.41	159.44	58.92	58.07	52	238.35	202.824	5.55
39.0465	231.02	205.1	169.75	59.09	58.2	52.36	232.41	169.362	5.61
39.54717	230.11	203.8	181.43	59.35	58.33	52.73	223.45	185.217	5.60
40.04617	230.48	202.85	182.27	59.6	58.39	52.9	220.24	192.462	5.60
40.54683	231.4	202.4	181.86	60.2	58.42	52.99	219.28	197.265	5.61
41.04567	232.57	201.88	182.07	61.19	58.44	53.06	219.39	200.643	5.59
41.5465	233.31	201.91	182.82	62.23	58.44	53.08	219.98	203.568	5.62
42.04633	233.5	201.82	185.06	63.42	58.49	53.27	216.67	174.096	5.58
42.54617	233.86	201.28	188.79	64.85	58.47	53.34	211.47	182.598	5.56
43.046	234.18	200.78	189.51	66.23	58.53	53.43	209.11	186.768	5.56
43.54583	234.62	199.54	189.92	67.96	58.52	53.47	208.06	189.852	5.57
44.0465	235.18	199.22	190.31	70.49	58.54	53.49	207.66	203.019	5.61

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
44.54633	235.8	199.18	190.83	73.59	58.54	53.41	208.4	201.126	5.59
45.047	235.87	199.16	191.42	76.78	58.54	53.43	209.71	201.303	5.60
45.54683	235.98	199.16	191.95	79.73	58.53	53.42	211.05	201.768	5.60
46.04583	235.67	199.1	192.56	82.4	58.53	53.4	212.64	202.446	5.63
46.5465	235.19	199.9	193.13	84.74	58.53	53.42	214.15	203.412	5.61
47.04633	234.83	199.62	193.71	86.75	58.53	53.42	215.55	202.614	5.57
47.54717	234.68	200.11	194.19	88.45	58.53	53.46	216.59	203.688	5.55
48.04683	234.57	200.35	194.72	89.99	58.52	53.47	217.21	202.95	5.57
48.54667	234.6	200.36	195.24	91.38	58.54	53.49	217.7	204.111	5.59
49.0465	234.58	200.41	195.56	92.68	58.54	53.53	218.16	203.253	5.60
49.54633	234.55	200.66	195.99	93.98	58.54	53.56	218.78	203.607	5.59
50.04717	234.42	201.1	196.41	95.23	58.57	53.59	219.6	202.026	5.61
50.546	233.91	200.82	196.86	96.54	58.57	53.63	220.55	201.969	5.61
51.04683	234.68	201.17	197.55	97.86	58.59	53.68	222.25	201.567	5.61
51.5465	237.58	201.8	198.18	99.26	58.56	53.7	223.58	201.474	5.62
52.04633	239.71	202.24	198.77	100.78	58.6	53.77	225.1	201.48	5.58
52.54617	239.33	203.03	199.36	102.41	58.62	53.79	226.71	201.501	5.58
53.046	238	203.62	199.93	104.13	58.65	53.86	228.12	202.539	5.61
53.54683	236.05	204.19	200.46	105.92	58.69	53.92	230.13	202.257	5.61
54.04667	235.26	205.02	200.91	107.71	58.72	53.97	231.63	201.483	5.60
54.5465	235.81	204.93	201.26	109.56	58.79	54.05	232.42	201.477	5.61
55.04717	236.63	204.84	201.44	111.46	58.85	54.1	232.47	201.432	5.63
55.547	236.92	204.53	201.51	113.39	58.92	54.17	232.3	201.417	5.63
56.04583	236.98	204.87	201.5	115.34	59.01	54.23	232.04	201.366	5.58
56.54567	237.11	203.67	201.45	117.26	59.1	54.3	231.36	202.428	5.56
57.0465	237.43	204.06	201.39	119.11	59.23	54.33	230.82	202.218	5.57
57.54633	237.15	203.86	201.3	120.93	59.34	54.39	230.36	202.062	5.60
58.04617	237.12	203.46	201.2	122.64	59.47	54.4	229.83	201.867	5.60
58.54583	236.99	203.39	201.13	124.29	59.68	54.46	229.27	201.63	5.60
59.04567	237.11	203.13	201.04	125.86	59.88	54.49	228.8	201.453	5.60
59.54734	237.03	203.18	201	127.37	60.13	54.55	228.55	201.33	5.62
60.04633	236.91	202.77	200.96	128.85	60.41	54.56	228.29	201.252	5.63
60.54617	236.9	203.11	200.92	130.27	60.71	54.6	228.05	202.221	5.59
61.04683	237.01	203	200.92	131.66	61.01	54.63	228.28	202.131	5.55
61.54583	236.75	203.28	200.97	133.06	61.33	54.65	228.4	202.026	5.56
62.0465	236.73	203.38	201.02	134.44	61.68	54.66	228.69	201.906	5.61
62.54633	236.69	203.25	201.11	135.88	62.06	54.72	229.16	201.75	5.61
63.047	236.46	203.41	201.21	137.37	62.45	54.79	229.74	201.711	5.58
63.546	236.3	203.38	201.35	138.96	62.87	54.77	230.44	201.615	5.60
64.04767	236.56	203.51	201.49	140.74	63.32	54.78	231.29	201.54	5.61
64.5465	236.59	204.12	201.7	142.85	63.79	54.82	232.26	201.576	5.62
65.04633	236.34	204.67	201.93	145.4	64.31	54.83	234.03	201.474	5.59
65.54617	234.24	204.58	202.23	148.84	64.88	54.87	235.06	202.242	5.56
66.046	234.38	204.65	202.52	153.32	65.44	54.9	236.5	202.227	5.57

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
66.54583	234.43	205.11	202.8	158.69	66.08	54.96	237.94	202.125	5.58
67.0465	234.66	205.97	203.07	164.49	66.7	54.91	239.25	202.215	5.61
67.54733	235.71	205.85	203.29	170.63	67.34	55.01	240.26	202.227	5.63
68.04716	236.75	206.08	203.47	176.24	68.01	55.06	240.92	202.11	5.60
68.546	237.1	205.79	203.59	181.15	68.71	55.11	241.37	202.071	5.64
69.04867	237.35	206.06	203.7	185.33	69.44	55.13	241.72	201.888	5.65
69.5465	237.48	205.84	203.73	188.97	70.17	55.17	241.68	202.422	5.59
70.04633	237.6	206.73	203.76	191.41	70.94	55.22	241.8	200.988	5.56
70.54617	237.72	206.77	203.76	193.5	71.73	55.2	241.67	200.877	5.58
71.046	237.57	206.12	203.7	195.09	72.5	55.29	241.32	200.802	5.61
71.54583	237.77	206.24	203.67	196.7	73.36	55.29	241.07	200.79	5.60
72.04666	237.96	205.88	203.61	197.9	74.2	55.34	240.8	202.038	5.61
72.5465	238.08	205.25	203.59	198.61	75.06	55.37	240.67	201.834	5.62
73.04617	238.21	205.57	203.57	199.16	75.96	55.39	240.63	201.75	5.63
73.546	238.33	205.51	203.58	199.84	76.84	55.41	240.62	202.074	5.62
74.04766	238.27	205.35	203.58	200.28	77.81	55.44	240.68	201.942	5.57
74.54567	238.12	205.22	203.63	200.64	78.71	55.46	240.96	201.792	5.55
75.0465	237.89	205.77	203.68	201.03	79.7	55.45	241.75	201.786	5.58
75.54633	237.08	205.75	203.84	201.37	80.71	55.47	242.25	201.69	5.61
76.04617	236.92	206.27	203.98	201.69	81.75	55.52	243.07	201.609	5.60
76.54583	236.5	205.85	204.15	201.99	82.83	55.54	244.17	201.528	5.61
77.04567	236.23	206.16	204.38	202.34	83.99	55.56	245.56	201.495	5.62
77.5465	235.9	206.51	204.67	202.68	85.19	55.57	246.99	201.546	5.65
78.04633	235.7	207.12	204.97	203.02	86.45	55.61	248.65	201.585	5.60
78.547	235.83	207.71	205.25	203.36	87.83	55.64	250.06	202.113	5.57
79.04867	235.84	207.6	205.5	203.67	89.28	55.68	251.36	202.056	5.58
79.54583	236.16	208.29	205.75	203.98	90.77	55.69	252.52	202.065	5.61
80.0465	236.73	207.98	205.94	204.19	92.31	55.75	253.43	200.889	5.61
80.54633	236.12	208.87	206.1	204.36	93.91	55.8	253.98	200.916	5.60
81.04617	236.26	208.5	206.19	204.49	95.56	55.87	254.35	200.892	5.60
81.546	237.26	208.46	206.24	204.57	97.19	55.91	254.59	200.856	5.63
82.04583	236.63	208.5	206.27	204.66	98.85	55.96	254.65	200.862	5.62
82.5475	236.99	207.89	206.27	204.67	100.57	56.03	254.58	200.862	5.57
83.04633	236.48	207.98	206.26	204.69	102.16	56.09	254.37	200.769	5.57
83.54617	237.41	208.26	206.22	204.67	103.86	56.14	254.13	201.732	5.58
84.046	237.82	207.74	206.17	204.67	105.52	56.21	253.84	201.927	5.61
84.54583	237.73	207.69	206.15	204.66	107.11	56.29	253.7	201.906	5.60
85.0465	235.93	208.01	206.16	204.66	108.69	56.34	253.71	201.939	5.61
85.54633	234.94	208.58	206.2	204.71	110.28	56.43	254.07	201.78	5.62
86.04617	235.35	207.84	206.21	204.74	111.88	56.49	254.13	201.6	5.64
86.546	234.31	208.57	206.26	204.81	113.48	56.64	254.55	201.597	5.62
87.04583	234.96	208.53	206.35	204.88	115.09	56.63	255.22	201.531	5.57
87.5465	235.06	209.03	206.49	204.99	116.72	56.75	256.02	201.495	5.56
88.04733	234.81	208.53	206.67	205.18	118.36	56.84	257.14	201.498	5.59

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.54617	235.2	208.67	206.9	205.34	120.1	56.93	258.51	201.945	5.62
89.04784	232.69	209.65	207.14	205.61	121.91	57.04	259.9	202.026	5.60
89.54583	234.85	210.11	207.39	205.84	123.87	57.15	261.33	201.903	5.61
90.04666	235.71	210.4	207.66	206.1	125.95	57.23	262.62	201.96	5.61
90.5465	233.93	210.29	207.87	206.33	128.21	57.45	263.59	201.96	5.65
91.04617	234.7	210.55	208.01	206.49	130.77	57.62	264.19	201.978	5.62
91.546	235.52	210.34	208.1	206.59	133.66	57.84	264.54	201.984	5.56
92.04583	236.38	210.64	208.13	206.63	137.01	57.99	264.55	201.99	5.56
92.54666	233.87	210.24	208.11	206.62	140.97	58.2	264.18	202.017	5.58
93.0465	234.22	210.42	208.02	206.53	145.71	58.46	263.57	202.047	5.60
93.54716	233.51	210.04	207.93	206.4	151.39	58.68	262.86	202.209	5.60
94.048	236.17	209.7	207.69	206.19	158.06	59.04	261.55	202.188	5.61
94.54583	237.28	209.42	207.46	205.97	165.83	59.36	260.19	202.176	5.62
95.04567	237.22	208.97	207.2	205.72	176.1	59.81	258.69	202.221	5.64
95.5465	237.61	209.04	206.9	205.37	185.61	60.34	257.01	202.308	5.60
96.04633	237.79	208.74	206.61	205.03	193.32	60.97	255.24	200.631	5.57
96.54617	237.72	208.61	206.23	204.64	197.15	61.72	253.29	201.636	5.58
97.046	237.5	208.91	205.87	204.29	198.6	62.61	251.37	201.6	5.61
97.54583	237.3	207.74	205.52	203.93	199.47	63.57	249.56	201.576	5.61
98.0465	237.15	208.29	205.18	203.59	200.08	64.58	247.88	201.528	5.61
98.54716	237.04	208.42	204.87	203.28	200.43	65.58	246.43	201.918	5.62
99.047	236.38	207.43	204.57	202.99	200.93	66.6	244.81	201.909	5.63
99.546	236.95	207.05	204.3	202.74	201	67.6	243.38	201.522	5.61
100.0458	237.34	207.1	204.04	202.52	201	68.71	242.05	201.837	5.56
100.5465	237.48	206.98	203.75	202.23	200.96	69.91	240.49	201.945	5.57
101.0463	237.55	206.33	203.48	201.98	200.91	71.27	239.09	201.954	5.59
101.5462	237.28	206.17	203.21	201.73	200.74	72.71	237.66	201.894	5.61
102.046	237.06	206.4	202.91	201.44	200.56	74.37	235.97	201.729	5.59
102.5467	237.27	205.41	202.44	200.83	200.09	76.3	232.94	201.525	5.62
103.0475	237.68	204.78	201.92	200.5	199.98	78.57	230.69	201.42	5.61
103.5463	238.04	204.74	201.52	200.2	199.77	81.34	228.95	201.294	5.63
104.049	238.31	204.56	201.21	199.92	199.56	84.76	227.46	201.177	5.61
104.546	238.41	203.8	200.92	199.69	199.38	88.52	226.14	201.102	5.57
105.0458	238.57	203.64	200.67	199.45	199.22	92.47	224.86	201.03	5.56
105.5465	238.51	203.76	200.43	199.18	198.89	96.55	223.59	201.537	5.58
106.0463	238.55	203.15	200.14	198.96	198.86	100.65	222.47	201.351	5.60
106.5472	238.36	203.1	199.98	198.87	198.78	104.48	221.74	201.348	5.59
107.046	238.22	202.25	199.85	198.76	198.69	107.82	221.19	201.321	5.59
107.5458	238.05	202.72	199.76	198.67	198.61	110.82	220.78	201.369	5.60
108.0467	237.94	203.55	199.63	198.47	198.34	113.78	220	201.624	5.63
108.5465	237.96	202.57	199.49	198.41	198.41	116.91	219.5	201.354	5.61
109.0472	237.96	202.31	199.43	198.39	198.41	119.77	219.35	201.285	5.56
109.547	237.79	203.12	199.43	198.35	198.46	122.42	219.4	201.324	5.56
110.0458	237.52	202.51	199.43	198.37	198.44	125.13	219.45	201.345	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.5457	237.2	202.67	199.46	198.42	198.51	128	219.63	201.342	5.60
111.0465	237.25	202.39	199.49	198.44	198.51	131.01	219.78	201.348	5.59
111.5463	237.24	203.55	199.54	198.47	198.52	134.2	220.08	201.306	5.59
112.0462	237.31	202.73	199.6	198.52	198.54	137.45	220.42	201.258	5.61
112.5458	237.24	203.08	199.54	198.23	198.11	140.98	219.63	201.474	5.61
113.0467	237.36	203.13	199.43	198.28	198.34	144.61	219.52	201.546	5.62
113.5465	237.54	202.59	199.46	198.37	198.44	148.35	219.82	201.552	5.57
114.0472	237.75	202.88	199.55	198.46	198.53	151.9	220.09	201.6	5.55
114.5462	237.66	202.97	199.58	198.51	198.56	155.21	220.43	201.654	5.56
115.046	237.73	203	199.63	198.54	198.59	157.99	220.42	201.735	5.60
115.5458	237.89	203.32	199.63	198.52	198.56	160.37	220.34	201.702	5.60
116.0473	238.08	203.26	199.59	198.5	198.54	162.46	220.15	201.486	5.59
116.5472	237.92	204.65	199.41	198.08	198	164.63	218.7	201.537	5.60
117.0462	237.95	204.28	199.19	198.05	198.12	167.08	217.93	201.687	5.62
117.546	238	202.65	199.12	198.03	198.15	168.95	217.78	201.69	5.63
118.0458	238.11	202.18	199.08	198.02	198.18	170.39	217.62	201.564	5.58
118.5465	238.1	202.28	199.04	198	198.15	171.56	217.44	201.522	5.58
119.0463	238.12	202.21	199.02	197.98	198.14	172.54	217.28	201.48	5.57
119.5472	238.1	202.89	198.97	197.94	198.09	173.35	217.06	201.381	5.60
120.046	237.96	202.8	198.93	197.91	198.07	174	216.94	201.327	5.61
120.5458	237.63	202.29	198.8	197.6	197.58	175.41	215.98	201.609	5.61
121.0475	237.45	202.81	198.64	197.56	197.69	178.52	215.44	201.567	5.62
121.5463	237.48	201.77	198.58	197.58	197.79	179.67	215.3	201.636	5.62
122.0472	237.66	201.58	198.6	197.59	197.86	180.51	215.43	201.654	5.62
122.547	237.69	202	198.63	197.64	197.86	180.84	215.63	201.714	5.57
123.0468	237.69	202.22	198.68	197.69	197.91	181.15	215.91	201.564	5.56
123.5465	237.63	202.67	198.73	197.75	197.96	181.49	216.12	201.54	5.56
124.0463	237.47	202.42	198.76	197.78	197.99	181.91	216.35	201.546	5.60
124.5472	237.29	202.38	198.8	197.6	197.53	184.03	216	201.627	5.58
125.046	237.34	202.61	198.65	197.56	197.68	187.79	215.62	201.483	5.59
125.5458	237.37	202.75	198.67	197.61	197.79	188.51	215.83	201.741	5.62
126.0467	237.46	202.82	198.7	197.66	197.86	188.85	216.14	201.669	5.61
126.5473	237.35	202.07	198.77	197.73	197.89	189.13	216.45	201.51	5.61
127.0472	237.28	202.85	198.82	197.78	197.93	189.4	216.67	201.414	5.55
127.546	237.2	202.6	198.87	197.82	197.98	189.68	216.86	201.426	5.55
128.0458	237.31	202.45	198.91	197.87	198.01	189.93	216.99	201.414	5.56
128.5467	237.41	201.99	198.94	197.88	198.03	190.02	217.06	201.291	5.59
129.0465	237.41	202.13	198.96	197.88	198.04	190.36	217.14	201.285	5.59
129.5463	237.42	202.82	198.95	197.9	198.04	190.53	217.19	201.315	5.60
130.047	237.48	202.55	198.95	197.9	198.04	190.85	217.17	201.132	5.60
130.5468	237.47	202.78	198.9	197.7	197.69	192.77	216.51	201.429	5.60
131.0457	237.51	202.65	198.79	197.71	197.86	192.93	216.22	201.57	5.63
131.5473	237.49	202.78	198.78	197.73	197.89	192.73	216.23	201.51	5.58
132.0463	237.47	201.68	198.78	197.76	197.94	192.71	216.36	201.378	5.54

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.5462	237.48	202.04	198.78	197.72	197.88	192.87	216.18	201.504	5.54
133.046	237.48	201.84	198.78	197.74	197.92	193.13	216.15	201.483	5.56
133.5458	237.43	202.45	198.77	197.77	197.95	193.46	216.24	201.507	5.60
134.0465	237.41	202.68	198.77	197.77	197.97	193.63	216.3	201.525	5.59
134.5463	237.33	202.19	198.79	197.8	197.98	193.79	216.32	201.429	5.59
135.0462	237.35	201.87	198.79	197.8	198	193.97	216.41	201.39	5.59
135.546	237.36	202.55	198.8	197.82	198.02	194.17	216.48	201.363	5.61
136.0458	237.26	201.97	198.86	197.85	198.05	194.36	216.59	201.342	5.63
136.5475	237.27	202.1	198.87	197.87	198.07	194.52	216.71	201.402	5.58
137.0463	237.25	201.81	198.89	197.9	198.12	194.68	216.83	201.252	5.55
137.5462	237.2	201.7	198.85	197.72	197.72	195.99	216.31	201.435	5.57
138.0468	237.18	202.7	198.78	197.7	197.85	196.31	216.13	201.573	5.60
138.5458	237.14	202.84	198.76	197.74	197.88	196.43	216.26	201.369	5.60
139.0465	237.15	202.19	198.79	197.75	197.89	196.48	216.4	201.534	5.60
139.5463	237.21	202.87	198.82	197.8	197.95	196.55	216.57	201.645	5.61
140.0462	237.22	203.33	198.86	197.82	197.98	196.6	216.74	201.513	5.62
140.546	237.22	202.72	198.89	197.85	198.01	196.65	216.9	201.426	5.62
141.0458	237.25	203.45	198.93	197.87	198.05	196.76	217.06	201.447	5.57
141.5465	237.25	203.7	198.96	197.92	198.06	196.83	217.17	201.339	5.55
142.0473	237.27	202.57	198.97	197.92	198.06	196.86	217.27	201.426	5.57
142.5462	237.25	203.32	198.99	197.97	198.1	197	217.4	201.21	5.60
143.046	237.28	203.63	199.01	197.97	198.1	196.98	217.42	201.201	5.61
143.5458	237.41	203.22	199.02	198	198.13	197.06	217.42	201.312	5.60
144.0467	237.39	202.37	199.02	197.98	198.11	197.09	217.47	201.075	5.60
144.5465	237.28	203	198.97	197.77	197.77	196.85	216.66	201.333	5.65
145.0462	237.13	202.98	198.84	197.73	197.82	197.01	216.25	201.561	5.62
145.547	237.24	202.85	198.77	197.73	197.85	197.08	216.17	201.585	5.56
146.0468	237.27	202.56	198.76	197.73	197.85	197.08	216.16	201.141	5.57
146.5457	237.41	202.36	198.74	197.69	197.8	197.06	215.97	200.985	5.59
147.0473	237.38	201.84	198.69	197.65	197.78	197.06	215.79	200.943	5.61
147.5463	237.3	201.23	198.67	197.63	197.85	197.08	215.71	201.018	5.62
148.047	237.26	201.93	198.65	197.65	197.79	197.09	215.6	200.823	5.60
148.5468	237.25	201.62	198.63	197.63	197.79	197.11	215.57	200.952	5.62
149.0457	237.24	202.26	198.63	197.64	197.82	197.13	215.52	200.793	5.64
149.5465	237.21	202.93	198.58	197.48	197.59	196.89	214.98	201.234	5.59
150.0463	237.12	202.26	198.52	197.52	197.73	197.09	215	201.357	5.55
150.5462	237.17	201.65	198.54	197.59	197.84	197.19	215.16	201.339	5.56
151.046	237.17	201.79	198.57	197.62	197.84	197.23	215.3	201.429	5.59
151.5458	237.1	201.61	198.61	197.64	197.85	197.23	215.5	201.204	5.60
152.0465	237.08	202.21	198.62	197.64	197.85	197.19	215.54	201.207	5.60
152.5472	237.08	201.94	198.64	197.66	197.83	197.23	215.56	201.042	5.62
153.0462	237.11	202.33	198.64	197.65	197.85	197.23	215.62	201.12	5.62
153.546	237.02	202.38	198.66	197.67	197.85	197.22	215.68	201.153	5.63
154.0458	237	202.47	198.67	197.67	197.87	197.24	215.85	201.201	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.5475	237	202.47	198.71	197.69	197.86	197.26	215.93	201.138	5.57
155.0473	237.07	201.71	198.72	197.72	197.88	197.27	216.05	201.129	5.57
155.5462	237.05	202.32	198.74	197.7	197.64	196.98	216.05	201.153	5.60
156.046	236.99	203.14	198.68	197.63	197.77	197.18	215.71	201.42	5.60
156.5458	236.94	202.6	198.68	197.68	197.91	197.3	215.92	201.549	5.60
157.0465	237.02	202.44	198.72	197.75	197.93	197.34	216.16	201.327	5.62
157.5473	237.08	202.06	198.77	197.75	197.91	197.28	216.27	201.288	5.64
158.0472	237.11	202.46	198.78	197.76	197.91	197.28	216.29	201.147	5.61
158.546	237.15	203.83	198.78	197.75	197.91	197.28	216.27	201.129	5.57
159.0468	237.15	204.03	198.8	197.76	197.89	197.28	216.28	201.189	5.55
159.5475	237.15	203.9	198.78	197.78	197.91	197.3	216.28	200.979	5.57
160.0473	237.11	203.26	198.76	197.76	197.89	197.28	216.17	201.264	5.60
160.5462	237.14	203.26	198.75	197.74	197.9	197.26	216.13	201.051	5.60
161.046	237.16	202.43	198.74	197.74	197.88	197.28	216.08	201.009	5.60
161.5458	237.25	203.27	198.74	197.72	197.88	197.31	215.97	201.066	5.61
162.0467	237.27	203.02	198.72	197.72	197.9	197.29	215.91	200.94	5.61
162.5465	237.26	202.7	198.7	197.7	197.88	197.27	215.87	200.934	5.63
163.0462	237.21	202.45	198.67	197.59	197.61	197	215.43	201.102	5.57
163.546	237.19	202.66	198.54	197.5	197.59	197.02	215	200.922	5.56
164.0458	237.26	202.76	198.5	197.52	197.72	197.18	214.88	201.408	5.58
164.5457	237.22	202.55	198.52	197.57	197.86	197.32	215.1	201.339	5.58
165.0465	237.33	203.18	198.56	197.61	197.91	197.37	215.21	201.471	5.60
165.5472	237.26	201.76	198.57	197.64	197.87	197.34	215.3	200.886	5.61
166.047	237.17	201.99	198.61	197.64	197.84	197.28	215.29	200.757	5.62
166.5458	237.04	201.88	198.59	197.61	197.82	197.25	215.23	200.865	5.64
167.0457	237.02	202.53	198.57	197.62	197.84	197.28	215.2	200.979	5.61
167.5465	236.99	202.33	198.57	197.62	197.85	197.28	215.27	200.922	5.57
168.0463	237.02	202.44	198.59	197.64	197.82	197.3	215.31	200.853	5.56
168.5462	237.04	202.12	198.61	197.66	197.85	197.28	215.52	200.94	5.60
169.046	237	201.83	198.62	197.66	197.85	197.28	215.5	200.781	5.60
169.5467	237.06	202.52	198.62	197.66	197.85	197.3	215.58	200.829	5.60
170.0473	237.04	204.26	198.66	197.67	197.87	197.3	215.64	200.802	5.61
170.5463	237.02	203.46	198.66	197.71	197.87	197.3	215.72	200.889	5.64
171.0462	237.07	202.59	198.69	197.72	197.89	197.31	215.84	200.913	5.64
171.546	237.05	204.35	198.71	197.72	197.9	197.29	215.88	200.796	5.58
172.0458	236.98	203.9	198.71	197.72	197.88	197.24	216.01	200.793	5.57
172.5465	237.07	203.25	198.74	197.74	197.92	197.31	216.12	200.772	5.58
173.0463	237.14	203.43	198.74	197.76	197.95	197.33	216.11	200.913	5.61
173.5462	237.14	203.31	198.76	197.77	197.95	197.36	216.16	200.793	5.60
174.0497	237.14	203.75	198.78	197.77	197.95	197.34	216.19	200.847	5.61
174.5458	237.17	202.86	198.76	197.72	197.86	197.31	215.98	201.342	5.62
175.0465	237.23	202.66	198.74	197.75	197.95	197.43	216.01	201.321	5.62
175.5463	237.17	202.37	198.76	197.77	197.95	197.41	216.12	201.183	5.59
176.0462	237.21	202.52	198.74	197.77	197.95	197.38	216.04	201.126	5.56

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.546	237.26	202.94	198.74	197.77	197.93	197.39	216	201.27	5.55
177.0458	237.24	202.82	198.74	197.77	197.95	197.38	215.97	201	5.58
177.5465	237.23	202.39	198.72	197.73	197.91	197.36	215.88	201.033	5.59
178.0463	237.24	202.69	198.7	197.73	197.93	197.37	215.77	201	5.60
178.5462	237.19	202.67	198.68	197.71	197.89	197.35	215.72	200.802	5.62
179.046	237.17	202.21	198.66	197.71	197.93	197.37	215.64	200.97	5.62
179.5458	237.11	202.44	198.66	197.69	197.91	197.37	215.6	201.033	5.64
180.0475	237.1	202.62	198.64	197.7	197.89	197.35	215.55	201.06	5.61
180.5465	237.02	203.01	198.63	197.69	197.89	197.35	215.51	200.829	5.56
181.0462	237.02	202.62	198.64	197.69	197.89	197.35	215.49	201.075	5.57
181.546	237.04	202.67	198.61	197.64	197.82	197.32	215.28	200.691	5.60
182.0458	237.06	203.89	198.59	197.64	197.86	197.32	215.28	200.904	5.62
182.5457	237.04	203.62	198.57	197.66	197.89	197.37	215.3	201.18	5.61
183.0465	237.02	202.65	198.62	197.69	197.91	197.39	215.53	201.123	5.63
183.5463	236.97	202.53	198.64	197.71	197.93	197.39	215.63	201.051	5.65
184.0462	236.93	201.97	198.64	197.73	197.94	197.4	215.69	201.177	5.62
184.5458	236.84	203.06	198.68	197.74	197.96	197.42	215.83	201.177	5.59
185.0457	236.88	204.53	198.69	197.74	197.92	197.46	215.92	201.234	5.60
185.5473	236.86	203.99	198.69	197.76	197.99	197.4	216.05	201.153	5.62
186.0463	236.86	203.19	198.75	197.8	197.98	197.42	216.12	201.123	5.61
186.5462	236.82	203.22	198.76	197.8	197.99	197.42	216.25	201.069	5.63
187.046	236.86	202.74	198.8	197.81	198.01	197.49	216.29	201.093	5.65
187.5458	236.82	202.52	198.8	197.81	197.99	197.42	216.41	201.054	5.65
188.0465	236.91	203.45	198.78	197.85	198.03	197.45	216.4	201.051	5.59
188.5463	236.95	203.51	198.8	197.83	198.03	197.44	216.47	201.084	5.59
189.047	236.91	203.22	198.81	197.85	198.03	197.44	216.45	201.048	5.61
189.546	236.89	203.22	198.81	197.85	197.99	197.43	216.47	201.051	5.62
190.0458	236.82	202.88	198.8	197.85	197.99	197.43	216.45	200.94	5.60
190.5465	236.8	203.02	198.78	197.85	197.99	197.42	216.34	200.961	5.63
191.0473	236.84	202.74	198.78	197.83	198.01	197.42	216.29	200.931	5.65
191.547	236.91	203.13	198.78	197.83	197.99	197.42	216.26	200.934	5.63
192.046	236.98	202.91	198.74	197.76	197.85	197.31	215.93	201.219	5.59
192.5458	236.89	203	198.69	197.74	197.88	197.35	215.76	200.634	5.56
193.0465	236.82	202.57	198.65	197.7	197.86	197.31	215.66	200.523	5.63
193.5463	236.8	203.4	198.63	197.68	197.86	197.33	215.52	200.784	5.60
194.0462	236.8	202.98	198.63	197.68	197.86	197.34	215.49	200.967	5.62
194.546	236.78	203.16	198.6	197.68	197.9	197.38	215.49	201.081	5.65
195.0458	236.85	203.5	198.6	197.7	197.92	197.4	215.45	201.132	5.65
195.5465	236.83	203.59	198.6	197.7	197.92	197.4	215.48	201.078	5.59
196.0473	236.82	203.02	198.6	197.72	197.93	197.4	215.43	201.078	5.57
196.5472	236.8	203.11	198.58	197.7	197.92	197.4	215.41	201.024	5.60
197.0478	236.76	203.23	198.58	197.68	197.92	197.38	215.41	200.988	5.61
197.5458	236.76	203.61	198.6	197.68	197.92	197.4	215.44	201.087	5.59
198.0467	236.74	203.63	198.6	197.7	197.9	197.4	215.51	201.039	5.60

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.5465	236.73	204.86	198.6	197.7	197.95	197.38	215.55	200.976	5.61
199.0462	236.65	203.32	198.6	197.74	197.93	197.4	215.65	201.042	5.63
199.547	236.71	202.98	198.63	197.74	197.95	197.41	215.71	201.018	5.59
200.0458	236.64	203.14	198.65	197.74	197.97	197.41	215.75	200.967	5.57
200.5457	236.62	203.43	198.67	197.75	197.93	197.41	215.83	201.048	5.56
201.0473	236.56	203.37	198.68	197.77	197.97	197.41	215.9	201.03	5.61
201.5463	236.29	204.74	198.7	197.77	197.98	197.41	215.97	201.027	5.59
202.0462	236.44	203.62	198.7	197.79	198	197.43	216.06	200.919	5.61
202.5458	236.47	203.14	198.72	197.81	197.98	197.45	216.12	201.006	5.60
203.0457	236.6	203	198.72	197.7	197.7	197.12	215.89	199.518	5.63
203.5483	236.62	203.37	198.61	197.59	197.73	197.2	215.27	200.136	5.61
204.0463	236.67	203.5	198.56	197.63	197.82	197.25	215.27	201.147	5.58
204.5462	236.81	203.3	198.57	197.66	197.93	197.43	215.42	201.186	5.58
205.046	236.85	203.32	198.59	197.7	197.95	197.45	215.59	201.261	5.60
205.5458	236.83	204.38	198.63	197.73	197.98	197.48	215.71	201.255	5.60
206.0465	236.83	202.98	198.63	197.75	197.97	197.5	215.73	201.012	5.61
206.5482	236.83	202.8	198.65	197.75	197.95	197.34	215.71	200.718	5.60
207.047	236.78	202.85	198.63	197.71	197.89	197.36	215.58	200.673	5.61
207.546	236.74	203.46	198.61	197.7	197.89	197.36	215.44	200.535	5.62
208.0467	236.54	203.68	198.59	197.68	197.88	197.34	215.31	200.568	5.57
208.5465	236.76	203.95	198.56	197.66	197.88	197.36	215.16	200.67	5.56
209.0463	236.85	202.92	198.52	197.64	197.84	197.32	215.06	200.499	5.56
209.5462	236.78	202.48	198.5	197.62	197.84	197.32	214.97	200.505	5.60
210.046	236.7	203.35	198.5	197.61	197.84	197.3	214.93	200.526	5.59
210.5458	236.81	203.82	198.48	197.59	197.84	197.32	214.82	200.517	5.59
211.0465	236.85	203.21	198.47	197.59	197.82	197.3	214.83	200.511	5.59
211.5463	236.8	203.71	198.45	197.57	197.82	197.32	214.8	200.604	5.61
212.0462	236.76	204	198.47	197.59	197.84	197.32	214.8	200.532	5.62
212.547	236.74	204.2	198.47	197.59	197.82	197.32	214.86	200.472	5.58
213.0458	236.78	203.37	198.47	197.61	197.84	197.32	214.9	200.409	5.56
213.5465	236.76	202.67	198.49	197.61	197.86	197.32	214.9	200.454	5.56
214.0473	236.69	203.05	198.49	197.61	197.84	197.32	215.02	200.409	5.59
214.5472	236.65	202.55	198.5	197.64	197.84	197.34	215.06	200.595	5.60
215.047	236.74	203.21	198.54	197.64	197.88	197.34	215.08	200.688	5.58
215.5458	236.72	204.21	198.52	197.64	197.89	197.41	215.17	200.529	5.60
216.0475	236.72	204.25	198.54	197.66	197.86	197.41	215.33	200.529	5.62
216.5473	236.6	204.07	198.56	197.68	197.88	197.36	215.36	200.436	5.64
217.0462	236.54	203.84	198.59	197.68	197.89	197.34	215.43	200.553	5.59
217.546	236.58	203.37	198.59	197.64	197.8	197.28	215.37	201.156	5.56
218.0458	236.26	203.71	198.56	197.62	197.82	197.32	215.15	200.814	5.57
218.5457	236.44	204.75	198.54	197.66	197.91	197.41	215.35	201.291	5.59
219.0465	236.65	206.49	198.59	197.71	197.96	197.39	215.51	201.12	5.59
219.5463	236.7	206.09	198.63	197.73	197.96	197.44	215.67	201.054	5.59

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
220.0462	236.7	204.57	198.64	197.75	197.98	197.41	215.73	200.802	5.59
220.5458	236.65	203.87	198.65	197.73	197.95	197.39	215.63	200.769	5.63
221.0457	236.72	203.51	198.63	197.71	197.91	197.37	215.47	200.64	5.63
221.5473	236.76	204.64	198.59	197.68	197.89	197.35	215.4	200.706	5.58
222.0472	236.78	204.36	198.57	197.68	197.89	197.36	215.32	200.616	5.57
222.547	236.72	204.03	198.56	197.66	197.93	197.35	215.27	200.571	5.58
223.0468	236.83	204.34	198.56	197.66	197.88	197.34	215.14	200.538	5.60
223.5458	236.7	203.66	198.54	197.66	197.89	197.32	215.1	200.484	5.59
224.0465	236.72	203.64	198.52	197.62	197.86	197.34	214.85	200.484	5.58
224.5463	236.72	203.69	198.5	197.64	197.86	197.34	214.97	200.511	5.61
225.0462	236.58	203.64	198.49	197.61	197.88	197.34	214.86	200.496	5.64
225.546	236.58	203.18	198.49	197.63	197.86	197.28	214.81	200.76	5.62
226.0458	236.53	203.12	198.49	197.63	197.86	197.36	214.79	200.544	5.57
226.5465	236.49	203.68	198.49	197.61	197.86	197.34	214.72	200.562	5.57
227.0463	236.49	204.05	198.47	197.59	197.86	197.37	214.78	200.49	5.59
227.5462	236.42	204.72	198.49	197.61	197.88	197.32	214.74	200.502	5.61
228.0468	236.47	204.5	198.48	197.61	197.88	197.37	214.83	200.529	5.61
228.5467	236.58	204.02	198.48	197.62	197.88	197.37	214.88	200.475	5.61
229.0465	236.7	204.77	198.48	197.62	197.82	197.36	214.89	200.541	5.65
229.5463	236.62	204.46	198.49	197.55	197.71	197.21	214.63	199.524	5.65
230.0462	236.53	203.93	198.43	197.54	197.79	197.32	214.6	201.177	5.58
230.546	236.58	204.36	198.45	197.59	197.86	197.39	214.84	201.402	5.57
231.0458	236.6	205.32	198.47	197.64	197.93	197.46	215.08	200.901	5.59
231.5465	236.67	205.16	198.54	197.68	197.93	197.43	215.27	200.697	5.61
232.0463	236.69	204.21	198.56	197.68	197.91	197.39	215.32	200.502	5.61
232.5462	236.63	204	198.57	197.68	197.89	197.36	215.31	200.478	5.62
233.046	236.54	204.3	198.57	197.68	197.89	197.35	215.35	200.538	5.62
233.5477	236.67	203.25	198.59	197.68	197.89	197.37	215.31	200.58	5.62
234.0475	236.78	202.62	198.57	197.68	197.86	197.39	215.33	200.598	5.59
234.5473	236.79	203.91	198.57	197.7	197.89	197.37	215.35	200.538	5.55
235.0462	236.83	204.5	198.57	197.68	197.88	197.36	215.31	200.553	5.58
235.546	236.87	204.5	198.56	197.68	197.89	197.36	215.29	200.487	5.61
236.0458	236.97	205	198.56	197.68	197.88	197.36	215.24	200.526	5.61
236.5457	236.99	204.14	198.54	197.68	197.88	197.36	215.18	200.544	5.60
237.0473	236.94	203.21	198.54	197.66	197.88	197.36	215.18	200.427	5.60
237.5463	236.94	203.41	198.52	197.66	197.88	197.36	215.08	200.397	5.63
238.0462	237.04	202.66	198.47	197.54	197.7	197.18	214.59	200.64	5.59
238.5458	237.08	203.19	198.41	197.54	197.79	197.3	214.45	201.039	5.56
239.0457	237.13	203.37	198.4	197.57	197.86	197.46	214.65	201.297	5.56
239.5465	237.06	203.77	198.43	197.62	197.93	197.48	214.78	201.333	5.59
240.0463	237.12	203.43	198.47	197.64	197.95	197.46	214.91	201.219	5.59
240.5462	229.68	200.47	197.53	197	197.54	197.41	237.15	200.235	5.58
241.046	225.8	194.96	194.8	194.81	195.41	195.84	257.7	200.007	5.57
241.5458	233.37	194.47	194.56	194.1	194.22	193.65	275.72	200.856	5.55

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
241.5458	233.37	194.47	194.56	194.1	194.22	193.65	275.72	200.856	5.55
242.0465	240.06	194.39	194.58	193.79	193.69	192.13	290.5	201.066	5.55
242.5472	244.9	194.08	194.55	193.6	193.4	191.04	255.42	201.153	5.57
243.0462	248.09	193.78	194.49	193.47	193.22	190.23	248.27	201.177	5.59
243.546	249.99	193.1	194.48	193.42	193.1	189.66	267.33	201.291	5.61
244.0458	249.8	192.22	194.49	193.46	193.22	189.41	240.15	201.138	5.60
244.5465	250.37	190.12	194.42	193.39	193.19	189.16	251.32	200.901	5.61
245.0473	251.29	188.24	194.32	193.28	193.1	188.78	254.84	200.877	5.62
245.547	251.59	186.63	194.23	193.19	192.99	188.42	250.26	200.85	5.62
246.0468	251.06	185.2	194.14	193.1	192.87	188.06	271.81	200.982	5.57
246.5458	249.96	183.83	194.03	192.99	192.73	187.78	239.61	200.997	5.55
247.0465	242.4	190.77	193.14	193.12	192.83	189.05	252.06	200.394	5.56
247.5463	216.66	194.64	193.3	193.09	192.89	189.7	255.68	200.349	5.58
248.0462	204.53	195.44	193.63	192.98	192.8	189.45	255.6	200.409	5.58
248.546	200.43	195.74	193.73	192.87	192.68	189.11	245.57	200.163	5.58
249.0467	199.58	195.03	193.45	192.62	192.36	188.11	242.93	200.235	5.58
249.5465	199.04	193.25	193.29	192.41	192.07	187.46	235.09	200.223	5.58
250.0463	196.66	190.98	193.16	192.23	191.82	187.02	258.09	200.28	5.62
250.5462	191.95	186.98	193.04	192.07	191.61	186.68	237.47	200.367	5.64
251.046	186.97	183.32	192.94	191.93	191.43	186.39	239.74	200.406	5.58
251.5468	183.4	180.9	192.81	191.75	191.22	186.11	245.37	200.427	5.56
252.0467	179.49	179.27	192.67	191.59	191.02	185.8	247.32	200.373	5.57
252.5465	175.18	178.03	192.54	191.43	190.82	185.52	243.25	200.52	5.59
253.0462	171.26	176.99	192.39	191.27	190.65	185.23	245.54	200.526	5.60
253.546	167.41	175.97	192.24	191.1	190.43	184.95	247.23	200.436	5.59
254.0458	162.78	174.87	192.1	190.96	190.26	184.66	230.42	200.4	5.58
254.5457	159.3	173.73	191.96	190.8	190.04	184.38	233.98	200.424	5.61
255.0465	155.45	172.43	191.8	190.62	189.83	184.09	248.65	200.403	5.65
255.5472	151.28	171.09	191.66	190.46	189.63	183.81	263.23	200.397	5.60
256.0462	147.8	169.65	191.52	190.3	189.47	183.54	240.16	200.355	5.55
256.5458	143.6	168.12	191.38	190.12	189.26	183.23	254.34	200.316	5.55
257.0467	140	166.61	191.22	189.96	189.07	182.95	246	200.361	5.57
257.5465	136.44	165.06	191.04	189.76	188.78	182.41	261.46	200.688	5.61
258.0463	133.18	163.48	190.91	189.61	188.6	182.23	245.88	200.946	5.60
258.5462	129.9	161.89	190.77	189.45	188.41	182.04	245.95	201.051	5.60
259.0468	126.68	160.29	190.63	189.29	188.23	181.82	247.16	201.12	5.60
259.5467	123.7	158.72	190.49	189.11	188.03	181.56	262.25	201.267	5.63
260.0465	120.44	157.11	190.37	188.93	187.84	181.31	248.62	201.27	5.63
260.5472	117.78	155.62	190.19	188.75	187.64	181.02	236.59	201.306	5.58
261.0462	115.09	154.03	190.06	188.59	187.45	180.77	264.05	201.219	5.57
261.546	111.72	152.53	189.91	188.43	187.25	180.52	261.54	201.333	5.58
262.0458	109.11	151.1	189.76	188.26	187.04	180.24	263.92	201.312	5.62
262.5475	106.12	149.56	189.62	188.08	186.84	179.95	236.4	201.156	5.62

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
263.0463	103.51	148.03	189.48	187.9	186.63	179.65	234.84	201.168	5.62
263.5462	101.26	146.58	189.34	187.74	186.43	179.36	236.73	201.12	5.63
264.046	98.81	145.11	189.18	187.56	186.24	179.08	237.09	201.138	5.63
264.5467	96.89	143.64	189.04	187.39	186.02	178.81	244.29	201.111	5.59
265.0465	94.84	142.25	188.89	187.21	185.81	178.52	233.08	201.087	5.57
265.5473	92.63	140.94	188.75	187.03	185.63	178.24	245.19	201.117	5.56
266.0462	90.55	139.67	188.59	186.87	185.4	177.94	237.08	201.066	5.59
266.547	106.46	133.34	188.31	186.57	185.08	177.38	203.33	200.085	5.61
267.0458	113.14	135.56	187.97	186.32	184.8	176.73	205.3	201.219	5.59
267.5465	165.58	140.89	187.77	186.05	184.53	176.79	205.74	200.811	5.59
268.0463	194.66	156.33	186.86	185.55	184.13	176.99	204.47	199.548	5.61
268.5462	198.92	189.12	185.35	185.48	183.99	177.13	206.73	200.397	5.64
269.046	199.82	194.23	184.82	185.38	183.89	177.26	206.15	200.496	5.62
269.5458	202.13	195.43	185.11	185.25	183.73	177.03	205.43	200.631	5.58
270.0467	207.39	195.86	185.52	185.09	183.53	176.62	205.58	200.895	5.57
270.5473	222.16	196.39	189.43	184.93	183.32	176.26	206.22	201.066	5.59
271.0462	237.71	196.73	193.98	184.73	183.08	175.97	206.68	201.207	5.62
271.547	250.53	197.89	195.6	184.7	182.87	175.72	207.29	201.408	5.60
272.0468	256.92	199.65	196.16	184.63	182.67	175.49	208.12	201.276	5.61
272.5467	262.01	201.76	196.46	184.51	182.5	175.35	208.86	201.336	5.63
273.0473	264.35	202.93	196.7	184.51	182.35	175.22	209.34	201.369	5.65
273.5463	261.7	202.87	196.93	184.58	182.3	175.12	209.87	201.33	5.61
274.0462	261.96	204.09	197.15	184.76	182.25	174.99	210.28	201.357	5.57
274.5458	258.78	204.78	197.33	185.07	182.16	174.89	210.54	201.327	5.57
275.0457	257.23	204.44	197.42	185.37	182.11	174.76	210.77	201.336	5.60
275.5465	255.03	204.53	197.54	185.75	182	174.62	211.23	201.324	5.62
276.0472	252.19	204.17	197.67	186.2	181.95	174.5	211.86	201.333	5.59
276.5462	249.09	203.28	197.82	187.28	181.84	174.57	212.5	201.459	5.61
277.046	245.83	202.67	197.98	191.98	181.76	174.64	213.38	201.477	5.62
277.5467	242.44	202.15	198.2	196.12	181.67	174.72	214.41	201.462	5.63
278.0465	238.51	202.37	198.43	197.19	181.6	174.83	215.59	201.609	5.57
278.5463	234.66	203.05	198.66	197.57	181.53	175.01	216.49	201.852	5.56
279.0462	231.67	202.55	198.84	197.79	181.46	175.13	217.08	201.615	5.55
279.546	229.04	202.07	198.94	197.9	181.39	175.26	217.18	201.726	5.61
280.0458	224.55	202.04	198.97	197.97	183.42	175.41	216.91	201.582	5.60
280.5465	222.28	202.07	198.87	197.81	196	175.61	215.74	201.555	5.60
281.0463	222.33	201.41	198.58	197.65	197.61	175.7	214.33	201.426	5.61
281.5462	222.98	200.64	198.35	197.51	197.7	175.77	213.42	200.769	5.59
282.046	223.53	200.18	198.19	197.38	197.67	175.72	212.72	200.664	5.62
282.5467	224.54	200.03	198.05	197.29	197.65	175.68	212.21	200.517	5.58
283.0465	225.33	200.11	197.96	197.26	197.64	175.72	211.96	200.367	5.56
283.5463	225.44	200.27	197.92	197.24	197.66	176.87	211.76	200.424	5.56
284.0462	223.47	200.7	197.91	197.24	197.68	181.59	211.76	200.436	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
284.547	221.89	199.95	197.91	197.28	197.71	188.02	211.78	200.397	5.61
285.0458	222.15	199.86	197.91	197.21	197.5	192.59	211.58	201.084	5.59
285.5465	221.61	199.9	197.86	197.23	197.73	195.05	211.62	201.396	5.60
286.0463	222.08	200.02	197.91	197.3	197.8	196.23	211.97	201.15	5.60
286.5462	222.04	200.31	197.97	197.34	197.81	196.77	212.06	200.802	5.63
287.046	221.38	200.76	197.99	197.36	197.79	196.93	212.05	200.808	5.61
287.5458	223.06	200.67	197.97	197.36	197.81	197.07	212.17	200.853	5.57
288.0467	223.76	201	198.01	197.38	197.84	197.18	212.4	200.838	5.55
288.5465	224.5	200.84	198.08	197.42	197.9	197.25	212.81	200.877	5.57
289.0462	226.39	201.44	198.15	197.49	197.92	197.27	213.3	201.027	5.59
289.547	230.93	202.59	198.19	197.44	197.78	197.17	213.13	201.147	5.60
290.0458	232.86	203.6	198.17	197.45	197.87	197.28	213.42	201.354	5.59
290.5457	231.72	203.54	198.24	197.54	197.94	197.33	214.09	201.372	5.61
291.0465	229.77	203.19	198.41	197.65	198.01	197.37	214.64	201.201	5.61
291.5463	227.35	203.08	198.51	197.74	198.05	197.28	215.23	200.922	5.61
292.0462	226.3	203.24	198.64	197.82	198.09	197.32	215.75	200.88	5.62
292.5458	227.01	203.24	198.7	197.86	198.1	197.34	215.81	200.691	5.58
293.0457	226.96	203.6	198.66	197.78	198	197.17	215.26	201.159	5.58
293.5465	227.89	203.07	198.59	197.77	198.07	197.37	215.06	201.111	5.61
294.0482	227.21	203.05	198.54	197.77	198.05	197.36	214.74	201.123	5.61
294.547	227.32	201.91	198.45	197.71	198.02	197.36	214.29	201.078	5.60
295.0468	226.84	201.96	198.38	197.64	197.97	197.34	213.92	201.003	5.61
295.5458	227	201.15	198.29	197.56	197.91	197.3	213.36	200.877	5.63
296.0465	226.88	202.09	198.17	197.5	197.86	197.27	212.82	200.595	5.63
296.5472	226.64	201.48	198.08	197.39	197.86	197.23	212.45	200.622	5.58
297.047	226.09	201.37	197.99	197.34	197.74	197.15	212.04	197.844	5.56
297.546	227.38	201.86	197.9	197.25	197.7	197.2	211.75	200.97	5.57
298.0458	226	201.8	197.9	197.31	197.79	197.33	211.97	200.952	5.60
298.5465	226.36	201.41	197.92	197.31	197.76	197.26	212.05	200.631	5.60
299.0473	225.98	202.07	197.94	197.31	197.76	197.22	212.23	200.634	5.60
299.547	234.2	202.04	197.97	197.33	197.78	197.22	212.45	200.739	5.60
300.046	240.96	204.13	197.97	197.31	197.74	197.2	212.5	200.664	5.62
300.5458	244.62	203.4	197.96	197.29	197.72	197.17	212.65	200.679	5.63
301.0475	247	204.37	197.96	197.28	197.74	197.19	212.45	200.652	5.59
301.5473	247.02	204.58	197.94	197.28	197.72	197.19	212.47	200.706	5.55
302.0462	245.34	204.13	197.99	197.33	197.76	197.21	212.84	200.838	5.56
302.546	242.34	205.32	198.07	197.39	197.82	197.24	213.12	200.721	5.61
303.0458	239.35	205.39	198.14	197.44	197.87	197.28	213.36	200.859	5.61
303.5465	236.52	205.05	198.17	197.42	197.76	197.15	213.35	200.88	5.58
304.0463	233.4	204.48	198.23	197.5	197.89	197.32	213.88	201.198	5.60
304.5462	230.36	204.48	198.36	197.62	197.98	197.37	214.54	201.021	5.61
305.047	229.38	203.33	198.44	197.71	198.03	197.39	214.84	201.063	5.62
305.5468	230.58	203.62	198.48	197.75	198.02	197.35	214.9	200.577	5.59

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
306.0467	232.92	204.19	198.5	197.71	197.98	197.28	214.71	200.43	5.56
306.5465	233.53	205.29	198.43	197.64	197.93	197.3	214.25	200.418	5.57
307.0472	232.26	204.97	198.32	197.59	197.91	197.28	213.78	200.769	5.58
307.546	232.35	204	198.29	197.54	197.89	197.28	213.48	200.661	5.61
308.0458	232.93	203.89	198.22	197.5	197.86	197.27	213.23	200.601	5.63
308.5467	233.52	203.2	198.13	197.38	197.72	197.09	212.63	199.542	5.60
309.0473	233.21	203.21	198	197.29	197.7	197.14	212.11	200.577	5.64
309.5472	233.57	202.1	197.93	197.27	197.72	197.23	212.03	201.057	5.65
310.047	233.41	202.44	197.91	197.31	197.74	197.2	212.02	201.024	5.59
310.5458	233.45	202.8	197.91	197.31	197.75	197.29	212.09	200.97	5.56
311.0457	233.21	202.86	197.93	197.31	197.75	197.29	212.11	200.943	5.58
311.5465	232.48	202.28	197.93	197.31	197.77	197.27	212.2	200.973	5.61
312.0472	231.95	203.23	197.95	197.31	197.74	197.25	212.2	200.646	5.60
312.5462	232.3	203.34	197.95	197.31	197.74	197.24	212.19	200.871	5.61
313.046	231.73	203.43	197.95	197.33	197.77	197.27	212.39	200.952	5.62
313.5458	230.5	202.98	198.01	197.36	197.79	197.31	212.47	201.096	5.63
314.0465	231.86	202.7	198.04	197.4	197.83	197.31	212.8	201.057	5.62
314.5463	232.93	202.66	198.12	197.45	197.88	197.34	213.05	201.039	5.57
315.047	231.2	202.32	198.15	197.49	197.9	197.35	213.28	200.895	5.55
315.546	232.27	202.81	198.22	197.54	197.92	197.33	213.71	200.796	5.58
316.0467	233.02	203.77	198.29	197.58	197.96	197.35	213.99	200.859	5.61
316.5465	231.88	203.4	198.37	197.63	197.97	197.35	214.35	200.853	5.60
317.0463	232.63	204.04	198.42	197.69	198.01	197.36	214.56	201.024	5.61
317.5462	231.73	204.06	198.46	197.72	198.03	197.36	214.69	200.775	5.62
318.046	233	203.79	198.46	197.67	197.92	197.18	214.54	200.283	5.65
318.5458	233.4	203.95	198.4	197.65	197.97	197.37	214.23	201.228	5.60
319.0465	233.45	204.63	198.37	197.65	197.99	197.38	214.14	200.781	5.57
319.5463	233.58	203.88	198.33	197.6	197.94	197.29	213.9	200.403	5.58
320.0462	233.79	203.49	198.26	197.52	197.87	197.22	213.49	200.148	5.61
320.547	233.54	203.58	198.22	197.47	197.83	197.22	213.16	200.283	5.61
321.0458	233.47	204.13	198.13	197.42	197.79	197.2	212.82	200.247	5.60
321.5465	233.17	204.28	198.1	197.4	197.83	197.24	212.58	200.445	5.60
322.0473	232.06	203.92	198.03	197.37	197.76	197.24	212.46	200.472	5.63
322.5462	233.59	203.56	198.01	197.33	197.74	197.22	212.34	200.466	5.62
323.046	234.65	203.04	197.96	197.31	197.72	197.22	212.13	200.493	5.57
323.5458	234.4	203.25	197.94	197.26	197.58	197.04	212.09	200.526	5.57
324.0467	233.99	204.22	197.88	197.24	197.69	197.19	211.77	200.034	5.58
324.5465	233.67	203.99	197.92	197.27	197.74	197.29	211.99	200.967	5.61
325.0462	233.72	203.99	197.92	197.31	197.76	197.33	212.3	200.88	5.60
325.546	236.96	201.23	197.56	197.04	197.56	197.24	233.32	200.499	5.61
326.0468	239.42	197.78	196.59	196.25	196.95	196.93	238.62	200.085	5.62
326.5457	241.37	196.29	195.89	195.64	196.43	196.66	250.06	200.007	5.64
327.0465	241.21	195.5	195.57	195.43	196.13	196.09	261.62	200.394	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
328.0462	242.09	195.14	195.29	194.68	194.77	193.94	284.05	200.712	5.56
328.5458	243.67	195.05	195.23	194.43	194.41	192.92	297.65	201.006	5.59
329.0457	245.41	194.86	195.22	194.3	194.27	192.06	271.87	201.048	5.62
329.5465	246.55	194.5	195.16	194.25	194.19	191.47	299.89	200.928	5.60
330.0463	247.34	193.94	195.05	194.12	194.07	190.99	325.24	200.943	5.61
330.5462	224.93	193.07	193.48	192.76	192.13	189.8	349.74	199.626	5.61
331.046	228.47	192.83	193.07	192.06	191.22	187.83	266.77	200.994	5.65
331.5458	235.67	191.51	193.12	192.06	191.4	187.22	301.95	201.036	5.62
332.0473	238.5	190.56	193.1	192.12	191.6	187.42	329.74	200.766	5.56
332.5463	242.63	188.67	193.01	192.06	191.69	187.22	350.22	200.55	5.56
333.0462	245.19	187.22	192.9	191.99	191.7	186.86	280.71	200.52	5.58
333.546	247	185.82	192.8	191.94	191.67	186.59	307.12	200.538	5.60
334.0458	248.04	184.89	192.67	191.85	191.6	186.38	327.3	200.577	5.60
334.5475	248.38	184.14	192.56	191.76	191.49	186.18	342.86	200.583	5.61
335.0463	247.85	183.56	192.46	191.67	191.42	186	355.35	200.58	5.62
335.5462	246.81	182.9	192.33	191.56	191.27	185.81	367.84	200.589	5.64
336.046	241.53	189.7	191.42	191.58	191.27	186.61	378.22	200.265	5.60
336.5458	218.83	195.31	191.29	191.56	191.27	187.83	388.42	200.091	5.57
337.0465	202.04	196.08	191.65	191.47	191.24	187.53	400.46	199.992	5.58
337.5463	199.73	196.02	191.58	191.26	191.04	186.42	413.77	200.034	5.61
338.0462	199.37	194.11	191.47	191.06	190.79	185.72	428.19	200.043	5.61
338.547	197.91	192.07	191.35	190.88	190.56	185.23	442.17	200.025	5.61
339.0458	195.92	190.52	191.24	190.7	190.35	184.84	454.42	200.025	5.62
339.5465	193.77	188.84	191.1	190.54	190.11	184.45	464.82	200.091	5.63
340.0463	190.49	187.14	190.96	190.36	189.92	184.1	475.62	200.064	5.61
340.5462	186.96	185.72	190.81	190.22	189.7	183.84	487.48	200.037	5.56
341.046	182.55	184.2	190.67	190.08	189.52	183.55	502.1	200.07	5.57
341.5468	177.77	182.6	190.53	189.9	189.31	183.27	519.17	200.103	5.59
342.0475	172.45	180.9	190.37	189.76	189.11	182.96	536.59	200.088	5.61
342.5465	167.65	179.12	190.22	189.6	188.94	182.71	553.41	200.094	5.59
343.0462	162.86	177.36	190.08	189.44	188.74	182.44	568.34	200.088	5.62
343.546	158.28	175.62	189.94	189.3	188.56	182.17	579.27	200.133	5.61
344.0458	153.61	173.79	189.8	189.14	188.37	181.91	586.66	200.106	5.63
344.5457	149.06	171.92	189.64	188.98	188.17	181.66	591.64	200.121	5.61
345.0465	144.72	170.16	189.5	188.82	187.97	181.41	595	200.121	5.57
345.5463	140.64	168.32	189.34	188.66	187.81	181.14	586.13	200.148	5.56
346.047	136.7	166.72	189.18	188.51	187.62	180.89	263.12	200.115	5.58
346.5458	132.65	165.72	189.02	188.34	187.4	180.62	256.89	200.133	5.60
347.0457	128.71	165.55	188.84	188.18	187.23	180.34	298.69	200.163	5.59
347.5473	124.93	164.46	188.7	188.02	187.03	180.07	331.13	200.157	5.59
348.0463	121.25	162.28	188.52	187.86	186.83	179.8	271.75	200.142	5.60
348.547	117.69	161.21	188.4	187.7	186.66	179.57	314.51	200.208	5.63
349.046	114.3	159.81	188.27	187.54	186.43	179.32	272.28	200.217	5.61

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
328.0462	242.09	195.14	195.29	194.68	194.77	193.94	284.05	200.712	5.56
328.5458	243.67	195.05	195.23	194.43	194.41	192.92	297.65	201.006	5.59
329.0457	245.41	194.86	195.22	194.3	194.27	192.06	271.87	201.048	5.62
329.5465	246.55	194.5	195.16	194.25	194.19	191.47	299.89	200.928	5.60
330.0463	247.34	193.94	195.05	194.12	194.07	190.99	325.24	200.943	5.61
330.5462	224.93	193.07	193.48	192.76	192.13	189.8	349.74	199.626	5.61
331.046	228.47	192.83	193.07	192.06	191.22	187.83	266.77	200.994	5.65
331.5458	235.67	191.51	193.12	192.06	191.4	187.22	301.95	201.036	5.62
332.0473	238.5	190.56	193.1	192.12	191.6	187.42	329.74	200.766	5.56
332.5463	242.63	188.67	193.01	192.06	191.69	187.22	350.22	200.55	5.56
333.0462	245.19	187.22	192.9	191.99	191.7	186.86	280.71	200.52	5.58
333.546	247	185.82	192.8	191.94	191.67	186.59	307.12	200.538	5.60
334.0458	248.04	184.89	192.67	191.85	191.6	186.38	327.3	200.577	5.60
334.5475	248.38	184.14	192.56	191.76	191.49	186.18	342.86	200.583	5.61
335.0463	247.85	183.56	192.46	191.67	191.42	186	355.35	200.58	5.62
335.5462	246.81	182.9	192.33	191.56	191.27	185.81	367.84	200.589	5.64
336.046	241.53	189.7	191.42	191.58	191.27	186.61	378.22	200.265	5.60
336.5458	218.83	195.31	191.29	191.56	191.27	187.83	388.42	200.091	5.57
337.0465	202.04	196.08	191.65	191.47	191.24	187.53	400.46	199.992	5.58
337.5463	199.73	196.02	191.58	191.26	191.04	186.42	413.77	200.034	5.61
338.0462	199.37	194.11	191.47	191.06	190.79	185.72	428.19	200.043	5.61
338.547	197.91	192.07	191.35	190.88	190.56	185.23	442.17	200.025	5.61
339.0458	195.92	190.52	191.24	190.7	190.35	184.84	454.42	200.025	5.62
339.5465	193.77	188.84	191.1	190.54	190.11	184.45	464.82	200.091	5.63
340.0463	190.49	187.14	190.96	190.36	189.92	184.1	475.62	200.064	5.61
340.5462	186.96	185.72	190.81	190.22	189.7	183.84	487.48	200.037	5.56
341.046	182.55	184.2	190.67	190.08	189.52	183.55	502.1	200.07	5.57
341.5468	177.77	182.6	190.53	189.9	189.31	183.27	519.17	200.103	5.59
342.0475	172.45	180.9	190.37	189.76	189.11	182.96	536.59	200.088	5.61
342.5465	167.65	179.12	190.22	189.6	188.94	182.71	553.41	200.094	5.59
343.0462	162.86	177.36	190.08	189.44	188.74	182.44	568.34	200.088	5.62
343.546	158.28	175.62	189.94	189.3	188.56	182.17	579.27	200.133	5.61
344.0458	153.61	173.79	189.8	189.14	188.37	181.91	586.66	200.106	5.63
344.5457	149.06	171.92	189.64	188.98	188.17	181.66	591.64	200.121	5.61
345.0465	144.72	170.16	189.5	188.82	187.97	181.41	595	200.121	5.57
345.5463	140.64	168.32	189.34	188.66	187.81	181.14	586.13	200.148	5.56
346.047	136.7	166.72	189.18	188.51	187.62	180.89	263.12	200.115	5.58
346.5458	132.65	165.72	189.02	188.34	187.4	180.62	256.89	200.133	5.60
347.0457	128.71	165.55	188.84	188.18	187.23	180.34	298.69	200.163	5.59
347.5473	124.93	164.46	188.7	188.02	187.03	180.07	331.13	200.157	5.59
348.0463	121.25	162.28	188.52	187.86	186.83	179.8	271.75	200.142	5.60
348.547	117.69	161.21	188.4	187.7	186.66	179.57	314.51	200.208	5.63
349.046	114.3	159.81	188.27	187.54	186.43	179.32	272.28	200.217	5.61

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
350.0473	107.87	155.71	188.04	187.22	186.07	178.84	266.21	200.244	5.56
350.5463	104.68	154.92	187.9	187.06	185.88	178.59	298.67	200.193	5.57
351.0462	102.02	153.6	187.8	186.9	185.7	178.34	263.81	200.208	5.60
351.5468	99.22	153.01	187.67	186.74	185.52	178.11	230.34	200.184	5.59
352.0467	96.48	152	187.55	186.57	185.31	177.88	270.61	200.22	5.59
352.5475	93.62	150.77	187.43	186.41	185.13	177.63	295.28	200.211	5.61
353.0473	91.08	149.24	187.27	186.25	184.94	177.38	246.91	200.223	5.61
353.5462	88.6	148.28	187.09	186.07	184.74	177.11	272.05	200.247	5.62
354.0505	86.08	147.16	186.95	185.91	184.55	176.85	242.39	200.238	5.57
354.5467	83.53	145.69	186.81	185.75	184.37	176.6	264.83	200.25	5.55
355.0475	81.55	143.84	186.67	185.59	184.18	176.35	249.57	200.217	5.56
355.5463	79.54	142.68	186.55	185.44	183.98	176.1	241.29	200.211	5.60
356.0472	88.04	136.58	186.34	185.22	183.77	175.87	203.94	200.337	5.60
356.547	89.27	137.55	186.16	185.03	183.56	175.6	204.05	200.268	5.59
357.0458	94.54	136.78	186.06	184.84	183.36	175.37	204.68	200.52	5.60
357.5465	111.9	138.92	185.99	184.61	183.13	175.27	205.23	200.748	5.62
358.0463	182.37	143.15	185.65	184.21	182.8	175.09	205.07	200.694	5.63
358.5462	196.87	165.99	184.83	183.82	182.4	174.92	206.58	201.093	5.58
359.046	199.45	191.64	183.54	183.75	182.32	175.3	207.98	201.444	5.58
359.5458	200.55	195.5	183.27	183.7	182.18	175.46	206.83	201.048	5.57
360.0467	209.79	196.01	183.31	183.58	182.02	175.23	205.72	200.622	5.60
360.5473	219.94	196.03	183.42	183.41	181.81	174.82	205.3	200.556	5.61
361.0462	231.97	196.12	183.41	183.21	181.62	174.45	205.35	200.55	5.61
361.546	241.33	197.04	183.27	183.04	181.42	174.15	205.83	200.499	5.62
362.0458	254.7	198.63	184.22	182.88	181.21	173.95	206.15	200.679	5.62
362.5457	262.84	200.61	192.12	182.74	181.05	173.79	206.39	200.604	5.62
363.0465	265.9	201.79	194.61	182.63	180.91	173.62	206.97	200.589	5.57
363.5463	267.04	201.99	195.49	182.51	180.75	173.44	207.85	200.607	5.56
364.047	265.89	202.43	196.02	182.46	180.63	173.36	208.44	200.775	5.56
364.5458	263.96	202.79	196.38	182.47	180.53	173.27	208.81	200.853	5.60
365.0457	260.78	202.78	196.67	182.58	180.51	173.2	209.15	200.895	5.58
365.5465	257.31	203.17	196.87	182.71	180.46	173.12	209.45	200.979	5.59
366.0472	254.1	203.29	197.07	182.8	180.47	173.05	209.92	201.108	5.62
366.5462	249.58	203.16	197.29	182.88	180.42	173	210.51	201.138	5.61
367.046	244.23	202.78	197.49	183.57	180.37	173	211.21	201.237	5.61
367.5458	239.34	202.4	197.68	185.47	180.3	173.15	211.89	201.366	5.55
368.0465	234.22	201.89	197.93	189.37	180.25	173.19	213.17	201.606	5.55
368.5463	227.94	201.82	198.22	195.86	180.19	173.31	214.36	201.624	5.56
369.047	222.64	200.91	198.44	197.37	180.14	173.44	215.34	202.107	5.59
369.5468	220.12	201.28	198.64	197.86	180.05	173.58	216.01	202.092	5.59
370.0467	220.9	201.28	198.74	198.04	179.98	173.71	216.15	201.675	5.60
370.5465	222.42	200.8	198.54	197.85	179.92	173.93	214.55	202.359	5.60
371.0463	223.55	200.7	198.39	197.8	179.9	173.99	214.16	201.591	5.60

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
372.046	224.01	201.32	198.17	197.63	194.91	174.06	213.12	200.925	5.58
372.5458	224.41	201.02	198.03	197.49	197.11	174.04	212.18	201.609	5.54
373.0465	226.01	200.43	197.91	197.44	197.6	174.01	212.03	201.753	5.54
373.5463	225.98	200.24	197.89	197.46	197.7	173.98	212.06	201.693	5.56
374.0462	225.5	200.3	197.92	197.47	197.74	173.95	212.13	201.396	5.60
374.547	224.68	200.55	197.94	197.53	197.76	173.9	212.05	201.282	5.59
375.0458	224.15	200.29	197.89	197.48	197.77	173.85	212.1	201.192	5.59
375.5465	223.44	200.06	197.9	197.48	197.79	173.88	212.06	201.144	5.59
376.0463	222.44	200.6	197.92	197.51	197.85	174.4	212.19	200.994	5.61
376.5462	222.02	200.66	197.96	197.57	197.78	178.45	212.24	200.97	5.63
377.046	221.84	200.17	197.91	197.45	197.7	186	211.75	201.246	5.58
377.5468	221.58	200.21	197.86	197.45	197.83	191.7	211.85	201.468	5.55
378.0467	221.69	200.5	197.87	197.47	197.85	195	211.81	201.399	5.57
378.5463	219.46	201.2	197.94	197.53	197.89	196.28	212.11	201.147	5.60
379.0462	220.99	200.71	197.95	197.56	197.92	196.86	212.43	201.285	5.60
379.547	224.61	201.43	198.05	197.63	197.97	197.2	212.88	201.225	5.60
380.0468	230.66	201.85	198.09	197.66	198.01	197.28	213.16	201.306	5.61
380.5457	237.98	201.71	198.11	197.68	198.02	197.36	213.23	201.324	5.62
381.0465	241.67	202.82	198.09	197.66	198.02	197.38	213.23	201.396	5.62
381.5463	242.84	203.63	198.01	197.49	197.74	197.1	212.27	201.291	5.57
382.0462	242.2	203.92	197.89	197.42	197.8	197.28	212.25	201.582	5.55
382.5458	239.59	204.47	197.93	197.47	197.9	197.34	212.49	201.735	5.57
383.0457	236.46	203.58	197.99	197.54	197.92	197.36	212.71	201.546	5.60
383.5465	235.27	203.85	198.05	197.58	197.92	197.3	212.84	200.961	5.61
384.0463	235.45	204.93	198.06	197.61	197.93	197.3	212.86	201.039	5.60
384.547	235.87	204.49	198.04	197.56	197.92	197.27	212.72	200.979	5.60
385.0468	235.71	204.56	198.03	197.56	197.89	197.26	212.88	200.763	5.65
385.5458	234.66	204.68	198.03	197.57	197.84	197.26	212.78	200.895	5.62
386.0465	233.89	204.02	198	197.54	197.9	197.25	212.49	200.76	5.56
386.5463	233.88	203.61	197.97	197.52	197.9	197.26	212.42	200.724	5.57
387.0462	233.13	203.21	197.92	197.44	197.82	197.19	211.93	200.928	5.59
387.5468	233.01	203.34	197.91	197.46	197.89	197.32	212.11	200.964	5.61
388.0458	232.59	203.84	197.9	197.47	197.95	197.36	212.07	201.432	5.62
388.5475	232.68	204.29	197.94	197.51	197.96	197.37	212.19	201.192	5.60
389.0463	231.97	203.8	197.94	197.51	197.91	197.33	212.18	201.138	5.62
389.5462	231.94	203.66	197.93	197.5	197.97	197.36	212.03	201.123	5.64
390.046	232.41	203.34	197.92	197.49	197.95	197.34	212.13	201.141	5.59
390.5458	231.5	203.42	197.94	197.53	197.98	197.37	212	200.985	5.55
391.0465	231.97	203.94	197.91	197.48	197.94	197.32	211.93	201.117	5.56
391.5463	232.01	203.18	197.93	197.5	197.97	197.32	212.26	201.216	5.59
392.0472	234.97	202.91	197.95	197.52	197.97	197.34	212.22	201.096	5.60
392.546	237.59	202.72	197.94	197.49	197.99	197.35	212.12	201.285	5.60
393.0458	237.88	204.76	197.92	197.49	197.96	197.33	212.05	201.027	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
394.0463	235.9	205.22	197.79	197.31	197.77	197.15	211.32	200.184	5.63
394.5462	236.23	204.74	197.76	197.33	197.8	197.2	211.38	200.667	5.57
395.046	237.08	206.29	197.78	197.35	197.85	197.26	211.51	200.889	5.57
395.5458	236.54	204.88	197.84	197.41	197.91	197.3	211.92	201.288	5.57
396.0475	235.61	203.64	197.88	197.45	197.95	197.34	211.98	201	5.60
396.5463	235.28	204.6	197.92	197.49	197.97	197.36	212.18	201.078	5.60
397.0462	234.75	204.94	197.94	197.53	197.99	197.37	212.23	201.165	5.60
397.546	235.11	205.3	197.96	197.53	198.02	197.39	212.37	201.231	5.62
398.0468	235.09	206.13	197.98	197.56	198.02	197.39	212.38	201.09	5.64
398.5467	235.08	205.74	197.99	197.56	198.04	197.38	212.4	201.141	5.61
399.0473	234.9	205.03	198.01	197.58	198.05	197.38	212.5	201.201	5.57
399.5463	235.03	203.65	198.03	197.59	198.05	197.41	212.51	201.165	5.55
400.0462	235.38	204.75	198.02	197.59	198.07	197.41	212.46	201.237	5.57
400.5458	235.58	204.2	198.04	197.57	198.07	197.41	212.51	201.216	5.60
401.0457	235.62	205.26	198.03	197.6	198.08	197.4	212.5	201.201	5.60
401.5473	234.26	204.9	198.05	197.62	198.1	197.42	212.6	201.177	5.60
402.0463	234.34	205.16	198.05	197.6	198.12	197.42	212.64	201.147	5.61
402.547	234.25	203.84	198.05	197.61	198.16	197.41	212.6	201.162	5.61
403.046	234.4	203.64	198.04	197.59	198.09	197.41	212.5	201.174	5.63
403.5458	234.81	204.15	198.04	197.6	198.15	197.42	212.46	201.144	5.57
404.0465	234.96	203.54	198.01	197.58	198.08	197.4	212.47	201.132	5.56
404.5463	235.23	203.83	198.01	197.58	198.09	197.41	212.33	201.123	5.58
405.0462	235.07	203.68	198	197.57	198.09	197.39	212.43	201.096	5.58
405.5468	234.74	204.11	198	197.57	198.09	197.41	212.35	201.075	5.60
406.0467	234.72	204.13	197.99	197.56	198.08	197.38	212.32	201.003	5.61
406.5475	234.33	204.96	197.94	197.49	197.92	197.2	211.75	200.796	5.62
407.0463	234.8	204.22	197.87	197.44	197.98	197.35	211.7	201.252	5.64
407.547	235.36	204.55	197.87	197.48	198.02	197.35	211.95	201.024	5.61
408.046	235.36	203.98	197.91	197.48	198	197.36	211.92	200.847	5.57
408.5458	235.04	204.05	197.91	197.48	197.99	197.32	211.88	200.646	5.56
409.0475	235.22	205.26	197.9	197.45	197.97	197.27	211.78	200.493	5.60
409.5463	235.42	204.28	197.87	197.44	197.96	197.29	211.73	200.538	5.60
410.0462	235.48	204.46	197.85	197.44	197.96	197.28	211.67	200.697	5.60
410.546	235.3	204.96	197.87	197.42	197.96	197.28	211.89	200.577	5.61
411.0467	234.59	205.63	197.87	197.5	197.98	197.32	211.77	200.562	5.64
411.5465	234.39	204.84	197.88	197.46	198	197.32	211.86	200.583	5.64
412.0463	234.9	205.35	197.88	197.41	197.82	197.18	211.52	200.541	5.58
412.5462	235.01	205.08	197.83	197.4	197.92	197.26	211.49	201.06	5.57
413.046	234.92	204.88	197.85	197.38	197.97	197.35	211.63	201.114	5.58
413.5458	234.82	204.81	197.89	197.46	197.99	197.4	211.83	201.015	5.61
414.0475	234.84	204.19	197.91	197.48	198.01	197.37	211.89	200.925	5.60
414.5463	234.96	204.5	197.91	197.48	198.04	197.37	211.94	201.081	5.61
415.0462	235.04	205.13	197.93	197.5	198.06	197.37	211.94	201.06	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
416.0458	234.88	204.22	197.93	197.52	198.06	197.38	212.03	200.901	5.59
416.5467	234.92	203.65	197.92	197.51	198.14	197.37	211.99	200.862	5.56
417.0465	234.85	204.76	197.94	197.53	198.05	197.37	212.01	200.766	5.55
417.5472	234.76	206.02	197.92	197.51	198.05	197.39	212.02	200.856	5.58
418.0462	235.09	206.09	197.93	197.51	198.07	197.35	211.97	200.865	5.59
418.5468	235.13	206.02	197.93	197.5	198.05	197.35	211.96	200.826	5.60
419.0457	235.74	205.11	197.93	197.5	198.04	197.34	211.91	200.607	5.62
419.5465	235.47	205.31	197.91	197.5	198.11	197.3	211.87	200.379	5.62
420.0463	235.24	206.44	197.88	197.47	198	197.27	211.66	200.4	5.64
420.5462	235.26	206.49	197.86	197.43	197.97	197.25	211.57	200.424	5.61
421.046	235.28	206.01	197.83	197.42	197.97	197.27	211.55	200.412	5.56
421.5458	235.28	205.99	197.83	197.42	197.97	197.28	211.55	200.463	5.57
422.0465	234.92	207.5	197.85	197.44	197.98	197.28	211.58	200.508	5.60
422.5472	235.18	206.25	197.85	197.44	197.98	197.28	211.71	200.454	5.62
423.047	235.52	205.32	197.85	197.44	197.98	197.28	211.6	200.475	5.61
423.5468	236.13	206.04	197.84	197.44	197.98	197.28	211.68	200.367	5.63
424.0467	235.72	205.29	197.84	197.44	198.02	197.28	211.72	200.469	5.65
424.5465	235.72	204.84	197.86	197.45	198	197.29	211.67	200.508	5.62
425.0463	235.6	204.95	197.86	197.43	197.99	197.29	211.65	200.511	5.59
425.5462	235.54	206.08	197.84	197.45	198.01	197.29	211.69	200.481	5.60
426.046	235.4	206.13	197.88	197.45	198.01	197.29	211.82	200.385	5.62
426.5467	235.37	204.54	197.88	197.45	198.01	197.31	211.71	200.373	5.61
427.0475	235.51	205.07	197.87	197.46	197.99	197.29	211.7	200.436	5.63
427.5463	235.66	204.91	197.89	197.46	198.01	197.3	211.7	200.472	5.65
428.0462	235.34	204.12	197.89	197.48	198.03	197.31	211.78	200.484	5.65
428.546	235.32	204.25	197.89	197.48	198.01	197.3	211.76	200.397	5.59
429.0458	235.54	205.39	197.89	197.46	198.03	197.3	211.75	200.478	5.59
429.5465	235.63	204.55	197.87	197.48	198.03	197.28	211.74	200.43	5.61
430.0463	235.43	205.14	197.89	197.48	198.04	197.28	211.78	200.382	5.62
430.5462	235.29	205.16	197.89	197.48	198.11	197.3	211.78	200.481	5.60
431.046	235.08	205.74	197.88	197.48	198.04	197.31	211.82	200.49	5.63
431.5458	235.56	205.11	197.88	197.47	198.04	197.31	211.74	200.481	5.65
432.0467	236.12	206.31	197.86	197.47	198.02	197.31	211.74	200.436	5.63
432.5463	235.69	206.78	197.88	197.47	198.11	197.31	211.83	200.394	5.59
433.0462	235.65	207.16	197.86	197.45	198.03	197.29	211.74	200.448	5.56
433.546	235.55	207.01	197.9	197.47	198.03	197.31	211.69	200.424	5.63
434.0458	236.09	205.33	197.87	197.47	198.03	197.29	211.7	200.373	5.60
434.5457	235.62	205.08	197.87	197.47	198.04	197.31	211.66	200.301	5.62
435.0465	236.14	205.89	197.87	197.45	198.01	197.29	211.6	200.412	5.65
435.5472	235.87	205.78	197.85	197.46	198.01	197.26	211.61	199.737	5.65
436.047	235.35	205.91	197.82	197.39	197.94	197.24	211.31	200.655	5.59
436.5458	236.05	205.03	197.8	197.4	198	197.37	211.44	201.066	5.57
437.0457	236.05	204.89	197.85	197.44	198.1	197.4	211.62	200.961	5.60

Table B7-Temperature and production data for run 7

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
0.547333	244.97	159.52	53.84	56.58	56.12	50.53	204.96	201.222	5.57
1.047167	247.92	192.5	53.81	56.57	56.09	50.5	204.95	201.315	5.55
1.547	248.83	196.07	53.82	56.6	56.06	50.49	205	201.255	5.55
2.046833	248.64	196.73	53.83	56.59	56.09	50.52	204.99	201.324	5.57
2.546667	247.84	197.02	53.84	56.6	56.1	50.55	205.13	201.339	5.59
3.047333	246.33	196.83	53.87	56.63	56.15	50.58	203.88	200.292	5.61
3.546333	244.11	196.63	53.9	56.64	56.18	50.59	204.03	200.397	5.60
4.047	241.54	196.51	53.91	56.66	56.17	50.6	205.96	202.356	5.61
4.546834	238.57	196.52	53.92	56.67	56.2	50.63	206.28	202.569	5.62
5.046667	235.99	196.64	53.95	56.72	56.23	50.62	206.51	202.815	5.62
5.5465	234.02	196.57	53.96	56.73	56.26	50.66	205.9	202.239	5.57
6.047166	232.46	196.73	53.99	56.74	56.28	50.69	206.06	202.389	5.55
6.547	231.16	196.74	54	56.75	56.27	50.66	206.22	202.437	5.56
7.046	230.04	196.83	54	56.78	56.28	50.71	206.37	202.575	5.58
7.546667	229.28	196.74	54.05	56.81	56.33	50.72	206.33	202.509	5.58
8.048333	229.54	197.03	54.06	56.81	56.36	50.73	206.46	202.551	5.58
8.547167	232.11	197.22	54.05	56.8	56.35	50.74	206.01	202.074	5.58
9.047	234.57	197.28	54.06	56.76	56.32	50.75	206.04	202.101	5.58
9.546833	234.85	197.38	54.07	56.78	56.33	50.76	206.12	202.08	5.62
10.04667	234.42	197.66	54.11	56.79	56.36	50.73	206.15	202.14	5.64
10.5475	234.06	197.56	54.16	56.8	56.35	50.75	206.35	202.074	5.58
11.04733	234.03	197.49	54.17	56.85	56.36	50.76	206.22	202.104	5.56
11.54717	233.98	197.5	54.24	56.82	56.33	50.77	206.49	202.11	5.57
12.04683	233.45	197.55	54.3	56.85	56.39	50.78	206.52	202.044	5.59
12.54667	233.21	197.34	54.39	56.84	56.4	50.77	206.74	202.092	5.60
13.04833	233.11	197.47	54.47	56.85	56.47	50.8	206.84	202.11	5.59
13.54733	233.32	197.52	54.57	56.84	56.42	50.81	206.98	202.125	5.58
14.04617	232.86	197.74	54.72	56.84	56.43	50.82	207.31	202.092	5.61
14.547	232.44	198.02	54.84	56.83	56.44	50.84	207.78	202.158	5.65
15.04583	231.94	198.02	55.02	56.88	56.46	50.85	208.63	202.311	5.60
15.5475	231.75	198.64	55.22	56.91	56.49	50.86	209.76	202.227	5.55
16.04633	231.55	199.15	55.47	56.93	56.48	50.89	211.02	202.245	5.55
16.54717	231.11	199.98	55.73	56.89	56.53	50.89	211.49	202.254	5.57
17.047	230.51	200.49	56.06	56.88	56.51	50.9	211.1	202.236	5.61
17.54683	230.05	199.76	56.39	56.86	56.54	50.91	211.07	202.155	5.60
18.04667	230.13	200.18	56.78	56.83	56.53	50.9	210.77	202.161	5.60
18.54833	230.24	199.1	57.18	56.86	56.54	50.91	210.87	202.131	5.60
19.04717	230.32	198.64	57.61	56.83	56.55	50.9	210.85	202.137	5.63
19.54783	230.47	199.19	58.09	56.82	56.55	50.91	210.72	202.095	5.63
20.04767	230.61	199.05	58.57	56.79	56.62	50.89	210.41	202.044	5.58
20.54567	230.81	198.95	59.09	56.8	56.57	50.9	210.43	202.068	5.57
21.0465	231.46	198.89	59.63	56.81	56.58	50.93	210.66	202.059	5.58
21.54633	233.8	199.34	60.19	56.76	56.57	50.9	211.53	202.065	5.62
22.04617	236.47	199.31	60.77	56.73	56.57	50.91	211.28	202.011	5.62

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
22.54683	237.09	199.46	61.42	56.71	56.56	50.91	211.6	201.993	5.62
23.04667	236.9	199.07	62.07	56.7	56.59	50.9	211.82	202.035	5.63
23.54833	236.69	199.51	62.74	56.71	56.62	50.93	212.15	201.963	5.63
24.04717	236.79	199.45	63.46	56.7	56.62	50.92	212.25	201.96	5.59
24.54617	236.88	199.38	64.21	56.69	56.67	50.94	212.71	201.939	5.57
25.04683	236.8	199.44	64.97	56.66	56.68	50.93	212.83	201.921	5.56
25.54667	236.74	199.9	65.75	56.65	56.72	50.92	213.03	201.93	5.59
26.04833	236.8	200.12	66.61	56.63	56.75	50.95	213.4	201.951	5.61
26.54817	236.97	200.61	67.49	56.62	56.79	50.95	213.77	201.885	5.59
27.047	236.7	200.67	68.38	56.63	56.86	50.98	214.47	201.81	5.59
27.54683	235.78	200.57	69.39	56.64	56.92	51.01	215.18	201.87	5.61
28.04667	234.98	201.26	70.47	56.64	56.95	51.03	216.07	201.813	5.64
28.54833	234.43	201.58	71.68	56.65	57.01	51.04	217.02	201.849	5.62
29.04633	233.97	202.49	72.97	56.62	56.96	51.01	218.01	201.831	5.58
29.54717	233.8	201.92	74.55	56.63	57.01	51.05	218.77	201.807	5.57
30.046	234.15	201.62	76.29	56.61	57.01	51.06	218.91	201.786	5.59
30.54667	234.19	201.36	78.19	56.6	57.04	51.05	218.94	201.717	5.62
31.0465	234.39	201.35	80.2	56.59	57.06	51.17	218.89	201.669	5.60
31.54733	234.52	200.89	82.27	56.56	57.11	51.37	218.77	201.582	5.61
32.04617	234.91	200.91	84.26	56.6	57.13	51.45	218.71	201.6	5.63
32.546	235.4	201.26	86.3	56.61	57.22	51.49	218.71	201.507	5.65
33.04583	235.76	201.3	88.43	56.6	57.18	51.52	218.64	201.486	5.61
33.5465	236.16	200.59	90.71	56.58	57.17	51.52	218.66	201.375	5.57
34.04733	236.24	200.95	93.23	56.59	57.2	51.59	218.54	201.354	5.57
34.54617	236.33	200.71	96.08	56.63	57.2	51.63	218.53	201.267	5.60
35.047	236.46	200.82	99.28	56.64	57.23	51.7	218.55	201.213	5.62
35.54683	236.44	200.81	102.86	56.68	57.27	51.8	218.94	201.168	5.59
36.04667	236.53	201.25	106.74	56.69	57.32	51.84	219.13	201.096	5.61
36.5465	236.52	201.29	110.9	56.73	57.34	51.91	219.57	201.006	5.62
37.04617	236.2	201.06	115.47	56.8	57.37	51.99	220.05	200.91	5.63
37.546	235.81	200.91	120.43	56.84	57.39	52.05	220.48	200.847	5.57
38.04583	235.51	201.07	125.75	56.89	57.4	52.13	220.98	200.748	5.56
38.54667	235.27	200.88	131.51	56.93	57.42	52.18	221.42	200.55	5.55
39.04734	235	201.12	137.78	56.92	57.33	52.22	222.29	200.448	5.61
39.54633	234.88	201.48	144.96	56.98	57.38	52.28	223.27	200.346	5.60
40.04617	234.66	201.97	152.29	57.02	57.36	52.36	224.35	200.163	5.60
40.54683	234.48	202.26	160.85	57.08	57.37	52.45	225.6	201.837	5.61
41.04667	234.35	202.66	170.53	57.13	57.34	52.47	227.21	201.063	5.59
41.54734	234.49	203.24	178.21	57.21	57.42	52.55	229.06	200.61	5.62
42.04717	235.13	204	185.1	57.31	57.46	52.63	230.26	200.289	5.58
42.54617	235.71	203.81	189.91	57.39	57.51	52.72	230.79	200.076	5.56
43.046	236.09	204.15	192.9	57.51	57.53	52.8	231.17	201.981	5.56
43.54667	236.25	203.87	194.95	57.63	57.52	52.88	231.46	201.492	5.57
44.04734	236.63	204	196.53	57.71	57.58	52.96	231.56	201.891	5.61

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
44.54816	237.1	204.17	197.68	57.83	57.6	53.02	231.44	201.204	5.59
45.04617	237.52	203.55	198.43	57.99	57.63	53.09	231.01	200.7	5.60
45.546	237.78	203.55	199	58.13	57.63	53.19	230.59	200.064	5.60
46.04583	238.09	203.63	199.47	58.32	57.66	53.23	229.86	199.452	5.63
46.5475	238.54	203.02	199.76	58.54	57.64	53.29	229.11	201.459	5.61
47.04633	238.96	203.01	199.95	58.81	57.63	53.33	228.62	200.625	5.57
47.54617	238.98	202.51	200.1	59.15	57.69	53.36	228.05	199.818	5.55
48.046	238.93	202.66	200.23	59.52	57.68	53.4	227.58	205.041	5.57
48.54583	238.95	202.7	200.36	59.96	57.68	53.45	227.76	201.156	5.59
49.0465	238.74	202.65	200.47	60.46	57.69	53.49	227.6	200.073	5.60
49.54734	238.35	202.21	200.54	60.97	57.69	53.53	227.53	199.224	5.59
50.04717	237.96	202.66	200.66	61.58	57.7	53.57	227.74	201.804	5.61
50.546	237.75	202.72	200.77	62.18	57.72	53.6	228.2	200.547	5.61
51.04683	237.45	202.8	200.92	62.82	57.71	53.62	228.63	199.524	5.61
51.5475	237.37	202.94	201.05	63.53	57.73	53.68	228.98	198.699	5.62
52.04633	237.09	203.22	201.18	64.27	57.77	53.75	229.64	197.955	5.58
52.54617	236.63	203.15	201.36	65.05	57.76	53.81	230.53	197.277	5.58
53.046	236.52	203.64	201.58	65.87	57.75	53.83	231.77	203.391	5.61
53.54583	236.36	203.78	201.92	66.72	57.75	53.85	233.68	202.833	5.61
54.04667	236.19	204.2	202.32	67.59	57.75	53.9	235.55	202.236	5.60
54.5465	236.14	204.72	202.65	68.6	57.76	53.92	237.02	202.581	5.61
55.04617	236.31	204.89	202.96	69.62	57.78	53.96	238.52	202.32	5.63
55.546	236.51	205.09	203.21	70.64	57.77	54.03	239.72	201.921	5.63
56.04583	236.66	205.04	203.43	71.78	57.77	54.07	240.54	201.543	5.58
56.54667	237	205.44	203.56	72.99	57.78	54.15	241.01	201.117	5.56
57.0465	237.31	205.46	203.67	74.19	57.76	54.17	241.4	200.787	5.57
57.54633	237.39	205.41	203.7	75.51	57.79	54.22	241.42	200.382	5.60
58.048	237.89	205.42	203.72	76.89	57.81	54.26	241.29	200.07	5.60
58.54583	237.88	205.46	203.69	78.26	57.8	54.34	241.23	200.241	5.60
59.04567	238.08	205.23	203.65	79.71	57.82	54.36	240.84	200.451	5.60
59.54734	238.41	204.84	203.59	81.17	57.79	54.39	240.46	200.511	5.62
60.04717	238.23	204.93	203.56	82.68	57.83	54.43	240.35	200.601	5.63
60.547	238.07	204.92	203.52	84.25	57.83	54.45	240.11	200.352	5.59
61.046	238.04	205.03	203.47	85.88	57.87	54.49	240.05	200.4	5.55
61.54583	237.79	205.1	203.51	87.47	57.92	54.51	240.16	200.469	5.56
62.0465	237.72	205.14	203.53	89.13	57.92	54.54	240.38	200.541	5.61
62.54633	237.75	205	203.59	90.85	57.94	54.56	240.7	200.607	5.61
63.047	237.62	205.4	203.65	92.59	57.93	54.58	241.23	200.664	5.58
63.546	237.52	205.55	203.78	94.38	58.01	54.57	241.97	200.853	5.60
64.04583	237.4	205.75	203.96	96.24	58.07	54.61	242.89	200.808	5.61
64.5465	237.2	206.27	204.18	98.17	58.13	54.65	243.98	200.838	5.62
65.04633	236.96	206.31	204.4	100.19	58.19	54.67	245.27	200.862	5.59
65.54617	236.87	206.42	204.65	102.31	58.29	54.72	246.82	200.913	5.56
66.04684	236.8	206.73	204.94	104.55	58.29	54.74	248.23	200.943	5.57

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
66.54583	236.75	206.97	205.23	106.96	58.44	54.78	249.62	200.784	5.58
67.0475	236.85	207.27	205.48	109.51	58.54	54.8	250.9	200.931	5.61
67.54633	236.99	207.15	205.68	112.2	58.64	54.84	251.94	200.943	5.63
68.04617	237.21	207.51	205.87	115.04	58.74	54.85	252.85	200.946	5.60
68.546	237.39	207.87	206.03	118.01	58.84	54.87	253.48	201.081	5.64
69.04583	237.61	207.82	206.12	121.23	58.99	54.89	253.92	201.114	5.65
69.5465	237.87	207.68	206.2	124.6	59.15	54.9	254.18	201.111	5.59
70.04633	238.07	207.94	206.24	128.26	59.28	54.94	254.31	201.186	5.56
70.54617	238.16	207.48	206.26	132.14	59.44	54.96	254.36	201.198	5.58
71.046	238.38	207.71	206.26	136.24	59.58	54.98	254.27	201.294	5.61
71.54684	238.61	207.66	206.26	140.52	59.75	55	254.23	201.315	5.60
72.04666	238.81	207.32	206.25	144.97	59.91	55.03	254.42	201.339	5.61
72.5465	238.39	207.38	206.29	149.84	60.08	55.03	254.47	201.018	5.62
73.04617	238.01	207.45	206.31	154.89	60.25	55.03	254.75	201.138	5.63
73.546	237.75	207.69	206.35	160.26	60.41	55.04	254.95	201.195	5.62
74.04583	237.77	207.51	206.42	165.94	60.6	55.06	255.4	201.198	5.57
74.54567	237.91	207.5	206.51	171.83	60.79	55.06	256.31	201.255	5.55
75.0465	236.93	208.18	206.7	178.36	61	55.08	257.24	201.315	5.58
75.54633	236.06	208.43	206.93	184.52	61.2	55.09	258.67	201.333	5.61
76.04617	235.13	208.63	207.22	189.99	61.43	55.09	260.18	201.363	5.60
76.54684	234.41	209	207.51	195.46	61.64	55.11	261.85	201.447	5.61
77.04567	234.22	209.12	207.8	198.94	61.87	55.11	263.44	201.477	5.62
77.5465	234.76	209.45	208.09	201.59	62.12	55.14	265.02	201.507	5.65
78.04633	235.44	209.79	208.36	203.42	62.38	55.16	266.34	201.582	5.60
78.54617	236.02	210.3	208.58	204.78	62.65	55.16	267.56	201.225	5.57
79.046	236.53	210.44	208.78	205.77	62.94	55.18	268.4	201.312	5.58
79.54583	237.01	210.55	208.89	206.51	63.24	55.21	268.97	201.372	5.61
80.04733	237.53	210.32	208.98	206.94	63.59	55.23	269.16	201.429	5.61
80.54633	237.95	210.24	208.95	207.25	63.91	55.23	269.09	201.441	5.60
81.047	238.29	210.13	208.93	207.48	64.29	55.25	268.87	201.537	5.60
81.546	238.65	209.9	208.88	207.61	64.64	55.24	268.49	201.561	5.63
82.04666	238.9	209.9	208.81	207.65	65.03	55.24	268.02	201.594	5.62
82.5475	238.91	209.78	208.74	207.68	65.45	55.3	267.75	201.633	5.57
83.04633	238.61	209.85	208.69	207.72	65.87	55.28	267.35	201.621	5.57
83.54617	238.57	209.64	208.64	207.69	66.27	55.28	267.06	201.75	5.58
84.046	238.66	209.79	208.62	207.69	66.71	55.29	267.03	201.747	5.61
84.54583	238.06	209.73	208.61	207.75	67.07	55.29	267.25	201.774	5.60
85.0465	237.75	209.99	208.7	207.82	67.58	55.31	267.71	201.477	5.61
85.54633	237.67	210.04	208.79	207.95	68.04	55.29	268.5	201.543	5.62
86.04617	237.46	210.3	208.97	208.13	68.53	55.32	269.75	201.588	5.64
86.546	236.63	210.51	209.26	208.42	69.02	55.36	271.42	201.711	5.62
87.04583	235.95	211.14	209.57	208.74	69.57	55.38	273.27	201.726	5.57
87.5465	236.05	211.54	209.89	209.07	70.12	55.38	275.13	201.741	5.56
88.04733	236.59	211.49	210.2	209.39	70.73	55.4	276.8	201.762	5.59

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
88.54617	236.82	211.69	210.45	209.66	71.39	55.44	278.01	201.828	5.62
89.046	237.06	211.83	210.63	209.87	72.07	55.48	278.73	201.849	5.60
89.54583	237.56	211.96	210.73	209.94	72.82	55.5	278.97	201.93	5.61
90.04666	238.1	211.77	210.73	209.94	73.63	55.54	278.8	201.861	5.61
90.5465	238.68	211.79	210.66	209.89	74.5	55.58	278.27	201.978	5.65
91.04617	239.11	211.79	210.55	209.78	75.46	55.66	277.49	201.774	5.62
91.546	239.06	211.34	210.39	209.64	76.5	55.67	276.68	201.867	5.56
92.04684	238.9	211.42	210.24	209.5	77.57	55.74	275.77	201.912	5.56
92.54567	238.9	211.56	210.08	209.35	78.75	55.8	274.76	201.711	5.58
93.0465	239.24	211.07	209.88	209.17	79.99	55.86	273.71	201.81	5.60
93.54716	239.53	211.12	209.72	208.99	81.3	55.92	272.84	201.831	5.60
94.04617	239.23	211.01	209.6	208.87	82.66	55.98	272.27	201.846	5.61
94.54684	238.07	210.89	209.49	208.78	84.02	56.04	271.83	201.927	5.62
95.04567	237.07	210.95	209.48	208.75	85.44	56.12	271.75	201.966	5.64
95.5465	236.33	210.7	209.48	208.73	86.96	56.16	271.92	201.579	5.60
96.04633	235.73	210.84	209.57	208.84	88.43	56.24	272.67	201.627	5.57
96.54617	235.25	211.19	209.74	209	90.02	56.28	273.87	201.834	5.58
97.04684	235.23	211.38	209.95	209.2	91.64	56.34	275.16	201.768	5.61
97.54583	235.71	211.73	210.17	209.4	93.41	56.41	276.3	201.972	5.61
98.0465	236.15	211.89	210.33	209.58	95.18	56.49	276.99	201.885	5.61
98.54633	236.76	212.03	210.41	209.67	97.19	56.57	277.14	201.246	5.62
99.047	237.26	211.89	210.34	209.62	99.34	56.67	276.57	201.339	5.63
99.546	237.66	211.75	210.25	209.53	101.64	56.8	275.83	201.441	5.61
100.0467	238	211.56	210.11	209.37	104.1	56.92	274.75	201.654	5.56
100.5465	238.56	211.17	209.88	209.18	106.8	57.05	273.37	201.603	5.57
101.0463	238.86	211.17	209.61	208.9	109.68	57.21	271.77	201.621	5.59
101.5462	239.01	210.62	209.33	208.63	112.82	57.38	270.13	201.54	5.61
102.046	239.12	210.53	209.04	208.29	116.15	57.57	268.32	201.363	5.59
102.5458	238.96	210.05	208.72	207.99	119.73	57.76	266.59	201.294	5.62
103.0465	238.69	209.65	208.35	207.63	123.58	57.99	264.54	201.072	5.61
103.5463	238.46	209.48	208.01	207.31	127.62	58.2	262.77	201.123	5.63
104.0462	238.32	209.26	207.7	207.01	131.82	58.47	261.05	201.291	5.61
104.546	238.11	208.87	207.4	206.72	136.18	58.76	259.6	201.297	5.57
105.0477	237.89	208.91	207.15	206.47	140.73	59.08	258.31	201.357	5.56
105.5465	237.82	208.66	206.96	206.24	145.43	59.4	257.23	201.339	5.58
106.0473	237.57	208.61	206.76	206.08	150.47	59.79	256.46	201.306	5.60
106.5472	237.38	208.45	206.66	205.94	155.57	60.2	255.94	201.426	5.59
107.046	237.09	208.56	206.5	205.76	161.89	60.64	254.88	200.886	5.59
107.5458	236.84	208.63	206.38	205.68	168.04	61.17	254.5	201.021	5.60
108.0467	236.81	208.56	206.29	205.55	174.18	61.74	254	201.066	5.63
108.5465	236.79	208.79	206.14	205.43	181.06	62.37	253.08	201.144	5.61
109.0462	236.83	208.76	205.91	205.14	189.54	63.11	251.38	200.658	5.56
109.546	236.87	208.37	205.58	204.84	194.74	63.92	249.59	200.772	5.56
110.0468	237.03	207.67	205.2	204.48	198.61	64.89	247.51	200.844	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
110.5457	237.26	207.14	204.79	204.04	200.67	65.93	245.14	200.94	5.60
111.0465	236.98	206.35	204.31	203.54	201.73	67.1	242.46	201.036	5.59
111.5463	237.14	206.35	203.63	202.82	201.96	68.44	238.45	200.517	5.59
112.0462	237.16	206.41	202.95	202.2	201.75	69.9	235.27	200.613	5.61
112.5458	237.36	205.28	202.34	201.61	201.34	71.5	232.22	200.673	5.61
113.0457	237.58	204.49	201.77	201.07	201.02	73.25	229.52	200.796	5.62
113.5465	237.61	204.28	201.15	200.4	200.41	75.08	226.06	200.226	5.57
114.0472	237.7	203.51	200.58	199.91	200.11	77.03	223.88	200.307	5.55
114.5462	237.79	202.9	200.18	199.57	199.83	79.04	222.16	200.385	5.56
115.0478	237.99	202.98	199.88	199.27	199.58	81.08	220.73	200.427	5.60
115.5467	238.17	202.32	199.59	198.9	199.06	83.05	219.14	199.902	5.60
116.0473	237.6	202.25	199.1	198.49	198.84	85.05	216.91	199.977	5.59
116.5463	237.75	202.01	198.86	198.29	198.72	86.97	216.1	200.043	5.60
117.047	237.89	201.3	198.72	198.18	198.61	88.84	215.58	200.121	5.62
117.546	237.89	201.52	198.63	198.13	198.56	90.69	215.25	200.154	5.63
118.0458	237.61	201.46	198.6	198.06	198.53	92.47	215.08	200.208	5.58
118.5465	237.48	201.82	198.56	198.03	198.51	94.13	214.97	200.214	5.58
119.0463	237.55	202.15	198.56	198.03	198.56	95.73	215.03	200.28	5.57
119.5462	237.45	201.79	198.57	198.06	198.56	97.27	215.16	200.307	5.60
120.0468	237.07	201.81	198.6	198.01	198.37	98.79	214.92	199.836	5.61
120.5458	236.7	201.41	198.51	197.96	198.46	100.28	214.86	199.881	5.61
121.0465	236.63	201.06	198.53	198.03	198.53	101.72	215.13	199.887	5.62
121.5463	236.7	201.43	198.62	198.09	198.6	103.17	215.51	200.022	5.62
122.0462	236.82	202.24	198.7	198.16	198.66	104.61	215.78	200.04	5.62
122.546	237.02	202.21	198.75	198.21	198.71	106.05	215.94	200.082	5.57
123.0458	236.94	201.85	198.77	198.25	198.73	107.5	216.11	200.112	5.56
123.5465	236.81	201.94	198.7	198.07	198.41	108.97	215.07	199.62	5.56
124.0463	236.6	202.55	198.54	198	198.49	110.54	214.84	199.668	5.60
124.5462	236.83	202.08	198.52	198	198.5	112.16	214.82	199.695	5.58
125.046	237.14	202.3	198.51	197.97	198.58	113.91	214.8	199.83	5.59
125.5458	237.41	201.75	198.5	197.99	198.51	115.81	214.78	199.809	5.62
126.0475	237.62	201.66	198.51	197.99	198.45	117.79	214.74	199.836	5.61
126.5465	237.57	201.01	198.47	197.95	198.51	119.85	214.6	199.908	5.61
127.0462	237.68	201.37	198.47	197.94	198.47	121.94	214.5	199.911	5.55
127.547	237.7	201.96	198.19	197.54	197.95	124.78	212.46	199.44	5.55
128.0458	237.52	201.75	197.97	197.45	197.95	128.78	212.13	199.491	5.56
128.5457	237.54	201.02	197.92	197.42	197.94	133.11	211.96	199.551	5.59
129.0465	237.43	201.75	197.9	197.38	197.94	137.33	211.87	199.644	5.59
129.5472	237.57	201.45	197.89	197.37	197.92	141.33	211.82	199.638	5.60
130.0462	237.5	202.6	197.89	197.39	197.92	144.93	211.75	199.638	5.60
130.5458	237.67	202.08	197.87	197.37	197.92	148.14	211.7	199.704	5.60
131.0457	237.88	201.54	197.85	197.33	197.92	151.24	211.73	199.728	5.63
131.5465	237.35	201.45	197.69	197.01	197.4	156.43	210.08	199.233	5.58
132.0472	236.97	201.49	197.48	196.96	197.5	161.61	209.8	199.308	5.54

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
132.5462	237.22	201.35	197.46	196.94	197.5	164.93	209.83	199.392	5.54
133.046	237.19	201.15	197.46	196.96	197.51	167.11	209.95	199.476	5.56
133.5458	236.92	200.94	197.48	196.98	197.55	168.75	210.01	199.479	5.60
134.0465	237.06	201.64	197.52	197	197.57	170.35	210.13	199.476	5.59
134.5463	237.01	201.28	197.55	197.05	197.61	171.91	210.28	199.536	5.59
135.047	237.33	201.01	197.57	197.07	197.64	173.57	210.48	199.542	5.59
135.546	237.12	201.05	197.63	197.11	197.66	175.55	210.57	199.587	5.61
136.0458	237.23	201.62	197.63	197.13	197.68	177.54	210.68	199.644	5.63
136.5465	237.05	201.82	197.34	196.71	197.18	184.6	208.7	199.236	5.58
137.0473	236.96	202	197.23	196.72	197.27	187.09	208.77	199.215	5.55
137.547	237.01	201.23	197.25	196.75	197.31	188.9	208.94	199.26	5.57
138.046	237.16	201.32	197.27	196.77	197.33	190.45	209.06	199.293	5.60
138.5458	237.36	201.21	197.29	196.79	197.33	191.68	209.15	199.359	5.60
139.0465	237.59	201.12	197.31	196.81	197.36	192.51	209.21	199.404	5.60
139.5463	237.77	201.59	197.33	196.83	197.44	192.98	209.31	199.41	5.61
140.0472	237.9	201.07	197.37	196.86	197.44	193.3	209.46	199.449	5.62
140.547	238.04	200.79	197.38	196.88	197.47	193.55	209.58	199.5	5.62
141.0458	238	201.41	197.28	196.69	197.15	194.98	208.51	199.032	5.57
141.5465	237.83	200.98	197.15	196.63	197.2	195.18	208.4	199.059	5.55
142.0463	237.99	201.04	197.15	196.63	197.22	195.32	208.46	199.119	5.57
142.5472	238.15	200.82	197.17	196.65	197.24	195.51	208.52	199.158	5.60
143.047	238.31	200.68	197.19	196.69	197.26	195.68	208.57	199.191	5.61
143.5458	238.49	201.42	197.21	196.69	197.28	195.86	208.65	199.239	5.60
144.0467	238.48	201.15	197.23	196.71	197.3	196.01	208.75	199.272	5.60
144.5465	238.49	200.56	197.23	196.74	197.32	196.13	208.83	199.305	5.65
145.048	238.1	201.44	197.28	196.78	197.35	196.21	208.97	199.335	5.62
145.546	238.13	200.95	197.3	196.8	197.39	196.33	209.11	199.362	5.56
146.0458	237.89	201.96	197.23	196.6	197.03	196.01	208.09	198.828	5.57
146.5467	237.55	202.67	197.07	196.53	197.12	196.3	207.99	198.852	5.59
147.0465	237.56	201.44	197.09	196.6	197.18	196.41	208.2	198.93	5.61
147.5463	237.69	201.06	197.12	196.62	197.2	196.46	208.4	199.032	5.62
148.0462	237.49	201.81	197.18	196.66	197.23	196.52	208.6	199.029	5.60
148.5458	237.37	201.99	197.21	196.75	197.29	196.55	208.77	199.08	5.62
149.0457	237.53	201.49	197.25	196.75	197.32	196.6	208.94	199.074	5.64
149.5465	237.73	201.83	197.29	196.77	197.34	196.62	209.08	199.098	5.59
150.0482	237.87	202.17	197.32	196.8	197.36	196.64	209.2	199.122	5.55
150.5462	237.98	203.5	197.32	196.82	197.36	196.66	209.3	199.182	5.56
151.046	238.05	202.25	197.36	196.86	197.39	196.68	209.38	199.155	5.59
151.5458	238.02	201.44	197.38	196.86	197.4	196.72	209.48	199.212	5.60
152.0465	237.87	201.75	197.24	196.63	197.09	196.36	208.3	198.654	5.60
152.5472	237.89	202.21	197.13	196.59	197.16	196.54	208.31	198.711	5.62
153.0462	237.73	201.5	197.16	196.65	197.22	196.55	208.47	198.768	5.62
153.546	237.7	201	197.18	196.66	197.24	196.61	208.57	198.798	5.63
154.0458	237.6	201.68	197.2	196.68	197.25	196.63	208.63	198.864	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
154.5465	237.55	201.77	197.2	196.7	197.25	196.63	208.66	198.87	5.57
155.0482	237.64	201.09	197.22	196.7	197.29	196.67	208.7	198.93	5.57
155.5462	237.66	201.89	197.24	196.72	197.29	196.67	208.74	198.909	5.60
156.046	237.73	201.54	197.26	196.76	197.31	196.72	208.76	199.05	5.60
156.5458	237.77	200.36	197.24	196.76	197.33	196.72	208.79	198.942	5.60
157.0465	237.82	201.14	197.26	196.75	197.35	196.74	208.85	198.963	5.62
157.5463	237.84	201.16	197.28	196.76	197.35	196.72	208.92	198.996	5.64
158.0462	237.84	200.93	197.29	196.78	197.37	196.74	208.98	199.017	5.61
158.546	237.79	201.57	197.24	196.61	196.99	196.25	208.05	198.45	5.57
159.0458	237.59	201.95	197.06	196.52	197.1	196.49	207.82	198.549	5.55
159.5465	237.68	201.52	197.06	196.54	197.15	196.58	208.05	198.555	5.57
160.0463	237.74	200.95	197.1	196.61	197.17	196.6	208.24	198.66	5.60
160.5462	237.84	201.14	197.13	196.63	197.21	196.58	208.37	198.651	5.60
161.046	237.99	202.18	197.17	196.65	197.22	196.61	208.5	198.681	5.60
161.5458	237.86	202.08	197.19	196.69	197.24	196.63	208.62	198.834	5.61
162.0467	237.74	200.95	197.23	196.71	197.28	196.65	208.75	198.699	5.61
162.5465	237.68	201.47	197.24	196.74	197.3	196.67	208.83	198.765	5.63
163.0462	237.67	201.72	197.26	196.74	197.3	196.67	208.93	198.747	5.57
163.547	237.67	201.26	197.3	196.78	197.32	196.69	209.01	198.804	5.56
164.0458	237.63	201.63	197.28	196.78	197.33	196.69	209.11	198.774	5.58
164.5457	237.61	202.1	197.32	196.8	197.35	196.69	209.17	198.837	5.58
165.0465	237.69	201.2	197.32	196.83	197.35	196.71	209.2	198.84	5.60
165.5472	237.72	202.4	197.33	196.81	197.37	196.72	209.25	198.819	5.61
166.0462	237.61	202.69	197.23	196.64	197.14	196.49	208.32	198.492	5.62
166.5458	237.85	202.42	197.16	196.64	197.21	196.6	208.39	198.462	5.64
167.0457	237.78	201.51	197.17	196.65	197.21	196.6	208.43	198.489	5.61
167.5465	237.85	201.78	197.17	196.65	197.25	196.62	208.49	198.498	5.57
168.0472	237.85	202.3	197.19	196.67	197.23	196.62	208.5	198.567	5.56
168.5462	237.92	201.87	197.19	196.67	197.25	196.64	208.49	198.579	5.60
169.0468	238.05	201.35	197.18	196.67	197.25	196.64	208.5	198.624	5.60
169.5458	238.15	201.67	197.19	196.68	197.25	196.64	208.51	198.618	5.60
170.0465	238.23	201.24	197.18	196.69	197.27	196.66	208.52	198.63	5.61
170.5463	238.32	200.56	197.19	196.71	197.27	196.66	208.54	198.633	5.64
171.0462	238.37	201.12	197.19	196.69	197.27	196.64	208.54	198.759	5.64
171.5468	238.32	201.71	197.19	196.71	197.28	196.68	208.58	198.684	5.58
172.0458	238.25	201.42	197.19	196.69	197.3	196.71	208.61	198.762	5.57
172.5465	238.16	201.53	197.21	196.71	197.3	196.66	208.66	198.771	5.58
173.0463	238.14	201.8	197.23	196.75	197.3	196.68	208.75	198.729	5.61
173.5462	238	202.48	197.12	196.55	197.02	196.35	207.75	198.216	5.60
174.046	237.94	202.82	197.05	196.55	197.14	196.52	207.88	198.279	5.61
174.5458	238.03	202.01	197.09	196.59	197.14	196.57	208.17	198.306	5.62
175.0475	238.14	201.58	197.14	196.59	197.18	196.59	208.33	198.33	5.62
175.5463	238.21	203.3	197.14	196.66	197.23	196.59	208.46	198.387	5.59
176.0462	238.23	203.07	197.18	196.68	197.25	196.61	208.56	198.438	5.56

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
176.546	238.23	201.8	197.22	196.7	197.25	196.61	208.67	198.435	5.55
177.0458	238.25	202.25	197.22	196.71	197.27	196.62	208.74	198.468	5.58
177.5465	238.36	202.28	197.23	196.73	197.29	196.64	208.8	198.465	5.59
178.0463	238.45	201.68	197.25	196.75	197.31	196.64	208.86	198.504	5.60
178.5462	238.48	202.52	197.25	196.75	197.31	196.64	208.89	198.492	5.62
179.046	238.41	201.48	197.27	196.75	197.32	196.66	208.9	198.501	5.62
179.5458	238.36	201.66	197.27	196.77	197.32	196.68	208.9	198.579	5.64
180.0467	238.3	202.19	197.27	196.77	197.32	196.68	208.9	198.525	5.61
180.5465	238.16	202.45	197.27	196.77	197.34	196.7	208.94	198.534	5.56
181.0462	238.12	202.21	197.29	196.75	197.34	196.7	208.92	198.576	5.57
181.546	237.95	202.84	197.22	196.64	197.11	196.45	208.2	198.315	5.60
182.0458	237.89	202.18	197.13	196.61	197.2	196.59	208.16	198.246	5.62
182.5457	237.91	201.71	197.13	196.63	197.2	196.61	208.2	198.387	5.61
183.0465	237.95	201.77	197.11	196.65	197.22	196.61	208.24	198.282	5.63
183.5463	238.04	201.46	197.13	196.66	197.22	196.61	208.25	198.312	5.65
184.0462	238.11	200.92	197.11	196.63	197.24	196.61	208.27	198.345	5.62
184.5458	238.11	201.25	197.15	196.63	197.24	196.63	208.31	198.396	5.59
185.0457	238.18	201.66	197.15	196.66	197.26	196.61	208.32	198.318	5.60
185.5465	238.2	201.55	197.15	196.66	197.26	196.61	208.39	198.393	5.62
186.0463	238.14	201.07	197.17	196.68	197.27	196.65	208.43	198.396	5.61
186.5462	238.16	202.57	197.18	196.68	197.27	196.66	208.51	198.405	5.63
187.046	238.18	202.14	197.2	196.7	197.27	196.65	208.59	198.399	5.65
187.5458	238.22	201.93	197.22	196.72	197.31	196.7	208.62	198.471	5.65
188.0465	238.25	202.63	197.22	196.72	197.33	196.67	208.72	198.507	5.59
188.5463	238.29	202.5	197.26	196.72	197.2	196.52	208.69	198.096	5.59
189.0462	238.27	202.97	197.2	196.65	197.22	196.61	208.42	198.207	5.61
189.546	238.29	203.06	197.17	196.65	197.22	196.63	208.44	198.276	5.62
190.0458	238.27	203.18	197.19	196.7	197.26	196.63	208.52	198.306	5.60
190.5465	238.29	202.25	197.2	196.7	197.28	196.63	208.61	198.324	5.63
191.0463	238.25	202.31	197.2	196.7	197.28	196.65	208.68	198.306	5.65
191.5462	238.27	201.86	197.24	196.72	197.29	196.67	208.74	198.399	5.63
192.046	238.22	201.75	197.24	196.74	197.29	196.67	208.78	198.354	5.59
192.5458	238.27	201.93	197.26	196.76	197.31	196.69	208.8	198.405	5.56
193.0465	238.17	203.02	197.26	196.78	197.33	196.69	208.83	198.405	5.63
193.5463	238.06	203.13	197.26	196.76	197.33	196.69	208.86	198.405	5.60
194.0462	238.06	201.59	197.26	196.76	197.33	196.69	208.87	198.408	5.62
194.546	237.95	201.48	197.28	196.77	197.35	196.7	208.83	198.447	5.65
195.0458	237.97	201.58	197.28	196.76	197.33	196.72	208.85	198.435	5.65
195.5465	238.06	202.47	197.24	196.78	197.35	196.72	208.82	198.453	5.59
196.0463	238.19	201.54	197.26	196.76	197.35	196.71	208.82	198.507	5.57
196.5462	238.22	201.9	197.24	196.72	197.26	196.62	208.55	198.216	5.60
197.046	238.19	202.26	197.21	196.69	197.24	196.65	208.46	198.318	5.61
197.5458	238.26	202.51	197.17	196.65	197.24	196.65	208.43	198.3	5.59
198.0467	238.28	202.94	197.17	196.67	197.26	196.67	208.42	198.327	5.60

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
198.5465	238.31	202.63	197.17	196.69	197.26	196.65	208.39	198.297	5.61
199.0472	238.33	201.63	197.15	196.67	197.26	196.65	208.44	198.351	5.63
199.547	238.28	201.43	197.17	196.69	197.26	196.67	208.44	198.369	5.59
200.0458	238.26	201.83	197.17	196.69	197.28	196.67	208.47	198.411	5.57
200.5467	238.28	202.08	197.17	196.69	197.28	196.67	208.49	198.414	5.56
201.0465	238.24	202.56	197.19	196.69	197.28	196.67	208.58	198.45	5.61
201.5463	238.15	203.3	197.21	196.71	197.3	196.69	208.64	198.402	5.59
202.047	238.28	203.17	197.23	196.73	197.32	196.69	208.67	198.474	5.61
202.5458	238.33	202.74	197.23	196.74	197.32	196.71	208.77	198.441	5.60
203.0457	238.33	202.22	197.25	196.74	197.34	196.71	208.83	198.468	5.63
203.5465	238.42	201.9	197.26	196.76	197.35	196.73	208.9	198.459	5.61
204.0463	238.44	201.85	197.28	196.78	197.37	196.73	209	198.54	5.58
204.5462	238.44	201.17	197.3	196.8	197.37	196.73	209.12	198.507	5.58
205.046	238.41	202.15	197.28	196.73	197.3	196.64	208.8	198.192	5.60
205.5458	238.39	202.78	197.25	196.74	197.3	196.67	208.84	198.282	5.60
206.0465	238.34	202.78	197.27	196.77	197.32	196.68	208.92	198.315	5.61
206.5463	238.23	202.6	197.28	196.77	197.36	196.69	208.96	198.324	5.60
207.0462	238.16	203.87	197.28	196.78	197.39	196.69	209	198.342	5.61
207.5468	238.14	203.89	197.3	196.8	197.36	196.75	209.04	198.372	5.62
208.0458	238.03	202.14	197.3	196.8	197.38	196.71	209.04	198.39	5.57
208.5465	238.28	202.14	197.32	196.8	197.38	196.71	209.07	198.408	5.56
209.0473	238.28	201.53	197.3	196.82	197.38	196.73	209.04	198.396	5.56
209.5462	238.3	202.6	197.3	196.8	197.38	196.73	209.03	198.432	5.60
210.046	238.28	203.19	197.3	196.8	197.34	196.73	209.02	198.456	5.59
210.5458	238.66	203.75	197.29	196.79	197.36	196.73	209.01	198.441	5.59
211.0465	239.16	202.44	197.29	196.79	197.38	196.73	209	198.507	5.59
211.5463	239.23	203.14	197.31	196.79	197.38	196.75	208.95	198.54	5.61
212.0462	238.91	201.37	197.29	196.79	197.38	196.75	208.92	198.519	5.62
212.546	238.7	201.76	197.29	196.8	197.38	196.73	208.9	198.495	5.58
213.0458	238.55	202.28	197.29	196.79	197.34	196.77	208.9	198.558	5.56
213.5465	238.48	202.93	197.23	196.72	197.29	196.64	208.57	198.24	5.56
214.0463	238.5	201.95	197.2	196.7	197.29	196.68	208.53	198.267	5.59
214.5462	238.5	201.89	197.22	196.72	197.33	196.68	208.58	198.306	5.60
215.0488	238.48	201.77	197.22	196.72	197.31	196.68	208.61	198.342	5.58
215.5458	238.43	203.14	197.22	196.7	197.33	196.7	208.66	198.345	5.60
216.0467	238.56	203.02	197.24	196.72	197.33	196.7	208.73	198.408	5.62
216.5465	238.79	202.61	197.24	196.75	197.35	196.7	208.8	198.396	5.64
217.0462	238.97	201.68	197.25	196.75	197.36	196.72	208.86	198.405	5.59
217.546	238.81	202.5	197.27	196.79	197.38	196.72	208.93	198.408	5.56
218.0458	238.61	203.11	197.29	196.79	197.38	196.74	209	198.447	5.57
218.5457	238.4	202.97	197.29	196.81	197.35	196.74	209.1	198.525	5.59
219.0465	238.11	202.7	197.31	196.84	197.45	196.74	209.18	198.423	5.59
219.5463	238.15	203.17	197.35	196.85	197.42	196.76	209.25	198.501	5.59

Table B6. Continued.

Time min	T1 ºC	T2 ºC	T3 ºC	T4 ºC	T5 ºC	T6 ºC	Pinj psig	Pout psig	Vw cc/min
220.0462	238.16	202.63	197.35	196.85	197.44	196.77	209.33	198.477	5.59
220.5458	238.16	202.52	197.37	196.85	197.44	196.77	209.38	198.519	5.63
221.0457	238.13	201.63	197.4	196.88	197.44	196.78	209.46	198.624	5.63
221.5465	238.26	202.38	197.38	196.9	197.46	196.78	209.48	198.615	5.58
222.0463	238.38	203.11	197.39	196.9	197.51	196.79	209.51	198.552	5.57
222.5462	238.38	202.74	197.39	196.88	197.48	196.78	209.48	198.525	5.58
223.046	238.24	202.97	197.39	196.9	197.47	196.79	209.48	198.543	5.60
223.5458	238.13	202.04	197.35	196.8	197.33	196.64	208.98	198.225	5.59
224.0465	238.04	202.26	197.28	196.78	197.35	196.67	208.91	198.285	5.58
224.5463	238.08	201.63	197.28	196.8	197.35	196.69	208.91	198.282	5.61
225.0462	238.13	200.83	197.26	196.76	197.37	196.71	208.87	198.285	5.64
225.546	238.22	201.54	197.26	196.76	197.37	196.71	208.86	198.321	5.62
226.0467	238.28	201.54	197.25	196.76	197.35	196.71	208.81	198.342	5.57
226.5465	238.37	202.1	197.25	196.76	197.35	196.73	208.78	198.384	5.57
227.0463	238.49	202.53	197.25	196.75	197.35	196.71	208.75	198.348	5.59
227.547	238.55	203.03	197.25	196.73	197.35	196.71	208.72	198.495	5.61
228.046	238.6	203.16	197.25	196.74	197.35	196.71	208.68	198.366	5.61
228.5467	238.53	202.37	197.23	196.75	197.35	196.71	208.69	198.378	5.61
229.0465	238.55	201.92	197.21	196.73	197.34	196.73	208.69	198.423	5.65
229.5463	238.75	202.28	197.23	196.75	197.36	196.71	208.71	198.414	5.65
230.0462	239.05	201.35	197.23	196.78	197.36	196.71	208.75	198.42	5.58
230.546	238.87	201.22	197.25	196.8	197.37	196.73	208.84	198.435	5.57
231.0458	238.62	201.6	197.27	196.79	197.38	196.73	208.89	198.465	5.59
231.5465	238.78	201.92	197.29	196.8	197.41	196.75	209	198.447	5.61
232.0463	238.77	203.07	197.3	196.82	197.43	196.75	209.09	198.516	5.61
232.5462	238.53	201.49	197.3	196.84	197.41	196.77	209.18	198.441	5.62
233.047	238.62	201.15	197.34	196.86	197.43	196.77	209.27	198.51	5.62
233.5458	238.64	201.39	197.34	196.82	197.36	196.66	209.12	198.198	5.62
234.0467	238.64	201.87	197.32	196.8	197.38	196.7	209.13	198.453	5.59
234.5465	238.39	201.62	197.34	196.84	197.39	196.71	209.18	198.393	5.55
235.0462	238.34	201.6	197.32	196.82	197.36	196.7	209.2	198.438	5.58
235.546	238.14	201.66	197.34	196.84	197.41	196.73	209.25	198.441	5.61
236.0458	238.36	202.41	197.36	196.86	197.41	196.73	209.24	198.327	5.61
236.5457	239.02	203.63	197.34	196.84	197.41	196.73	209.22	198.324	5.60
237.0465	239.38	203.11	197.34	196.84	197.41	196.73	209.22	198.333	5.60
237.5463	239.58	202.72	197.33	196.84	197.42	196.74	209.14	198.381	5.63
238.0462	239.63	203.07	197.33	196.81	197.4	196.72	209.1	198.369	5.59
238.5458	239.65	202.25	197.31	196.82	197.4	196.74	209.03	198.423	5.56
239.0457	239.72	202.11	197.29	196.8	197.38	196.73	208.95	198.363	5.56
239.5465	239.6	202.14	197.29	196.79	197.38	196.74	208.87	198.375	5.59
240.0463	239.61	201	197.25	196.79	197.38	196.75	208.79	198.414	5.59
240.5462	239.65	201.64	197.25	196.75	197.38	196.74	208.76	198.399	5.58
241.046	239.9	202.43	197.26	196.75	197.36	196.75	208.72	198.432	5.57
241.5458	239.88	203.18	197.26	196.75	197.38	196.75	208.72	198.483	5.55

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
242.0465	239.01	203.02	197.26	196.77	197.38	196.77	208.76	198.579	5.55
242.5463	238.54	202.06	197.26	196.74	197.31	196.67	208.59	198.222	5.57
243.047	238.5	202.22	197.22	196.74	197.33	196.7	208.58	198.207	5.59
243.546	238.27	202.27	197.22	196.74	197.33	196.69	208.64	198.27	5.61
244.0458	238.27	201.52	197.24	196.74	197.35	196.72	208.71	198.297	5.60
244.5475	238.52	201.97	197.26	196.77	197.35	196.74	208.82	198.333	5.61
245.0463	238.63	201.63	197.26	196.78	197.37	196.72	208.91	198.279	5.62
245.5462	238.61	201.47	197.29	196.81	197.4	196.74	209.04	198.414	5.62
246.046	238.79	201.47	197.29	196.81	197.4	196.74	209.14	198.468	5.57
246.5458	238.74	203.63	197.33	196.83	197.42	196.74	209.23	198.465	5.55
247.0465	238.92	202.4	197.33	196.88	197.39	196.74	209.31	198.492	5.56
247.5463	238.83	203.28	197.39	196.87	197.44	196.76	209.37	198.384	5.58
248.0462	238.83	203.94	197.37	196.88	197.44	196.76	209.38	198.366	5.58
248.546	239.21	203.55	197.39	196.88	197.46	196.78	209.4	198.408	5.58
249.0458	239.49	203.28	197.37	196.89	197.44	196.76	209.4	198.42	5.58
249.5465	239.53	203.03	197.39	196.88	197.46	196.78	209.37	198.426	5.58
250.0473	239.55	202.63	197.37	196.88	197.46	196.76	209.34	198.414	5.62
250.5462	239.57	202.92	197.35	196.83	197.37	196.71	209.09	198.186	5.64
251.046	239.49	202.9	197.28	196.8	197.35	196.71	208.98	198.261	5.58
251.5458	239.46	203.01	197.28	196.8	197.37	196.71	208.89	198.216	5.56
252.0467	239.39	203.1	197.26	196.78	197.35	196.73	208.83	198.282	5.57
252.5465	239.5	202.78	197.26	196.74	197.32	196.71	208.74	198.312	5.59
253.0472	239.44	202.31	197.24	196.74	197.41	196.71	208.68	198.312	5.60
253.546	239.46	202.53	197.23	196.74	197.35	196.73	208.62	198.285	5.59
254.0458	239.43	203.66	197.21	196.75	197.35	196.73	208.56	198.327	5.58
254.5457	239.71	202.19	197.19	196.73	197.34	196.73	208.53	198.318	5.61
255.0473	239.78	202.15	197.21	196.75	197.34	196.71	208.55	198.372	5.65
255.5463	238.93	201.92	197.21	196.75	197.34	196.75	208.6	198.345	5.60
256.0462	238.5	202.26	197.21	196.75	197.35	196.75	208.64	198.354	5.55
256.5468	238.41	202.66	197.23	196.75	197.37	196.75	208.71	198.417	5.55
257.0467	238.5	203.18	197.27	196.77	197.37	196.75	208.77	198.435	5.57
257.5473	238.55	203.09	197.27	196.78	197.39	196.75	208.9	198.414	5.61
258.0463	238.28	202.12	197.3	196.82	197.41	196.75	209	198.441	5.60
258.5462	238.18	201.28	197.32	196.86	197.43	196.77	209.09	198.432	5.60
259.046	238.14	202.03	197.34	196.86	197.43	196.77	209.23	198.408	5.60
259.5458	238.21	202.43	197.36	196.87	197.45	196.78	209.36	198.465	5.63
260.0465	238.41	201.87	197.39	196.89	197.48	196.79	209.46	198.396	5.63
260.5463	238.79	201.91	197.38	196.86	197.38	196.68	209.2	198.183	5.58
261.0462	238.61	202.11	197.34	196.84	197.4	196.73	209.2	198.174	5.57
261.546	238.73	203.18	197.36	196.82	197.36	196.72	209.21	198.198	5.58
262.0458	239.02	203.25	197.34	196.84	197.42	196.72	209.21	198.258	5.62
262.5475	239.04	203.86	197.34	196.84	197.45	196.73	209.17	198.276	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
263.0463	238.7	203.63	197.34	196.84	197.42	196.75	209.12	198.267	5.62
263.5462	238.27	204.79	197.33	196.84	197.42	196.74	209.08	198.279	5.63
264.046	238.11	204.9	197.33	196.79	197.42	196.75	209	198.333	5.63
264.5458	238.18	203.47	197.31	196.83	197.34	196.74	208.9	198.333	5.59
265.0465	238.25	202.82	197.29	196.79	197.38	196.75	208.82	198.306	5.57
265.5463	238.32	202.47	197.25	196.79	197.38	196.75	208.75	198.474	5.56
266.0472	238.38	202.81	197.26	196.77	197.36	196.74	208.67	198.408	5.59
266.546	238.47	203	197.24	196.77	197.38	196.74	208.59	198.48	5.61
267.0458	238.58	204.38	197.22	196.75	197.36	196.75	208.54	198.324	5.59
267.5465	238.63	203.36	197.22	196.76	197.36	196.77	208.56	198.357	5.59
268.0463	238.73	201.88	197.22	196.77	197.36	196.75	208.59	198.357	5.61
268.5462	238.83	201.71	197.22	196.72	197.33	196.68	208.48	198.153	5.64
269.046	238.83	202	197.18	196.72	197.31	196.7	208.49	198.126	5.62
269.5468	238.77	203.02	197.22	196.72	197.33	196.72	208.58	198.171	5.58
270.0467	238.74	202.88	197.22	196.74	197.35	196.72	208.65	198.189	5.57
270.5465	238.7	203.25	197.24	196.75	197.35	196.7	208.74	198.225	5.59
271.0462	238.61	202.97	197.26	196.81	197.33	196.74	208.87	198.225	5.62
271.547	238.61	202.43	197.28	196.79	197.4	196.74	208.97	198.21	5.60
272.0468	238.59	202.61	197.31	196.83	197.42	196.76	209.09	198.213	5.61
272.5467	238.61	202.06	197.33	196.85	197.42	196.74	209.21	198.255	5.63
273.0465	238.54	201.97	197.37	196.86	197.44	196.74	209.3	198.246	5.65
273.5463	238.58	203.27	197.37	196.86	197.45	196.76	209.33	198.249	5.61
274.0462	238.59	203.61	197.37	196.88	197.45	196.76	209.35	198.318	5.57
274.5458	238.59	203.42	197.37	196.88	197.49	196.76	209.37	198.288	5.57
275.0475	238.58	203.15	197.37	196.9	197.47	196.78	209.3	198.276	5.60
275.5473	238.56	203.79	197.37	196.86	197.46	196.77	209.24	198.327	5.62
276.0472	238.59	203.1	197.37	196.86	197.44	196.77	209.17	198.282	5.59
276.5462	238.6	202.45	197.33	196.83	197.44	196.76	209.1	198.321	5.61
277.046	238.65	202.81	197.31	196.85	197.44	196.77	209.01	198.285	5.62
277.5467	238.7	203.19	197.31	196.83	197.42	196.78	208.93	198.345	5.63
278.0465	238.78	203.35	197.28	196.81	197.4	196.76	208.85	198.357	5.57
278.5463	238.78	202.44	197.26	196.79	197.39	196.76	208.8	198.339	5.56
279.0462	238.79	202.18	197.26	196.76	197.31	196.67	208.5	198.024	5.55
279.5468	238.85	202.02	197.21	196.72	197.31	196.69	208.36	198.09	5.61
280.0458	238.9	201.68	197.15	196.69	197.28	196.69	208.3	198.069	5.60
280.5465	238.94	202.01	197.15	196.67	197.28	196.67	208.29	198.006	5.60
281.0463	238.96	202.88	197.15	196.69	197.3	196.67	208.31	198.135	5.61
281.547	238.97	203.44	197.15	196.69	197.3	196.71	208.33	198.147	5.59
282.046	239.01	203.12	197.19	196.71	197.33	196.69	208.39	198.087	5.62
282.5458	238.97	204.19	197.17	196.71	197.3	196.71	208.46	198.066	5.58
283.0465	238.83	203.17	197.21	196.71	197.32	196.69	208.57	198.162	5.56
283.5463	238.99	203.47	197.23	196.76	197.35	196.69	208.71	198.06	5.56
284.0462	238.69	202.65	197.26	196.78	197.37	196.69	208.8	198.108	5.57

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
284.546	238.56	202.19	197.28	196.8	197.39	196.73	208.87	198.126	5.61
285.0458	238.58	203.4	197.3	196.8	197.39	196.71	208.99	198.126	5.59
285.5465	238.64	204.05	197.3	196.8	197.39	196.73	209.05	198.093	5.60
286.0463	238.69	203.05	197.34	196.83	197.41	196.73	209.13	198.063	5.60
286.5472	238.71	202.92	197.34	196.85	197.41	196.73	209.2	198.144	5.63
287.046	238.74	202.23	197.34	196.85	197.43	196.69	209.21	198.156	5.61
287.5458	238.66	201.85	197.34	196.85	197.41	196.73	209.22	198.168	5.57
288.0467	238.62	202.65	197.35	196.85	197.42	196.73	209.18	198.138	5.55
288.5465	238.57	203.42	197.35	196.85	197.41	196.73	209.14	198.171	5.57
289.0462	238.57	203.53	197.32	196.83	197.41	196.73	209.08	198.174	5.59
289.546	238.62	202.39	197.32	196.82	197.39	196.73	208.99	198.174	5.60
290.0458	238.64	201.71	197.3	196.82	197.39	196.69	208.95	198.186	5.59
290.5457	238.64	202.49	197.3	196.8	197.39	196.73	208.85	198.216	5.61
291.0465	238.73	202.49	197.27	196.78	197.39	196.73	208.77	198.186	5.61
291.5463	238.73	203.05	197.25	196.76	197.37	196.73	208.68	198.192	5.61
292.0462	238.73	202.96	197.25	196.76	197.36	196.73	208.61	198.327	5.62
292.5458	238.73	203.19	197.23	196.77	197.36	196.73	208.54	198.303	5.58
293.0457	238.78	202.87	197.21	196.73	197.34	196.71	208.51	198.222	5.58
293.5465	238.8	203.07	197.21	196.75	197.36	196.73	208.5	198.171	5.61
294.0463	238.86	203.12	197.2	196.73	197.36	196.73	208.53	198.177	5.61
294.5462	238.86	202.14	197.21	196.75	197.36	196.75	208.56	198.246	5.60
295.046	238.84	201.17	197.23	196.77	197.38	196.73	208.65	198.21	5.61
295.5458	238.86	201.03	197.23	196.77	197.36	196.66	208.66	198.159	5.63
296.0473	238.84	203.16	197.23	196.75	197.34	196.71	208.61	198.168	5.63
296.5472	238.82	203.77	197.23	196.75	197.34	196.7	208.68	198.228	5.58
297.0462	238.84	203.2	197.25	196.79	197.36	196.71	208.77	198.114	5.56
297.546	238.91	202.82	197.27	196.77	197.38	196.71	208.89	198.114	5.57
298.0467	238.91	202.5	197.29	196.8	197.4	196.73	208.99	198.066	5.60
298.5465	238.88	201.96	197.31	196.82	197.38	196.73	209.05	198.168	5.60
299.0463	238.81	201.43	197.32	196.84	197.41	196.72	209.14	198.153	5.60
299.5462	238.72	201.75	197.34	196.86	197.45	196.75	209.18	198.147	5.60
300.046	238.68	202.5	197.36	196.84	197.45	196.75	209.23	198.312	5.62
300.5458	238.59	203.43	197.36	196.88	197.43	196.77	209.26	198.195	5.63
301.0465	238.54	204.43	197.34	196.86	197.45	196.75	209.21	198.186	5.59
301.5463	238.5	203.74	197.35	196.86	197.43	196.75	209.18	198.186	5.55
302.0462	238.5	202.63	197.35	196.86	197.43	196.77	209.1	198.168	5.56
302.547	238.54	203.49	197.31	196.86	197.45	196.75	209.05	198.201	5.61
303.0458	238.57	202.48	197.31	196.86	197.42	196.75	208.95	198.204	5.61
303.5465	238.59	202.02	197.31	196.84	197.42	196.75	208.85	198.192	5.58
304.0473	238.65	202.73	197.27	196.79	197.42	196.75	208.77	198.297	5.60
304.5462	238.68	203.15	197.26	196.79	197.38	196.74	208.69	198.276	5.61
305.046	238.75	202.93	197.24	196.77	197.38	196.75	208.62	198.345	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
306.0467	238.84	201.82	197.22	196.76	197.36	196.74	208.52	198.273	5.56
306.5465	238.84	202.14	197.22	196.77	197.36	196.76	208.51	198.291	5.57
307.0462	238.84	202.59	197.22	196.75	197.36	196.76	208.53	198.336	5.58
307.546	238.81	202.68	197.22	196.7	197.29	196.61	208.4	197.907	5.61
308.0458	238.77	202.74	197.17	196.68	197.28	196.68	208.35	198.006	5.63
308.5467	238.74	202.41	197.19	196.7	197.31	196.68	208.4	197.982	5.60
309.0465	238.79	201.86	197.2	196.74	197.33	196.68	208.49	198.015	5.64
309.5463	238.83	202.59	197.22	196.74	197.33	196.72	208.57	198.066	5.65
310.0462	238.86	203.08	197.24	196.75	197.35	196.7	208.67	198.093	5.59
310.5458	238.86	202.79	197.24	196.77	197.37	196.72	208.78	198.081	5.56
311.0457	238.79	203.2	197.27	196.77	197.38	196.7	208.87	198.129	5.58
311.5465	238.72	202.04	197.29	196.81	197.4	196.74	208.96	198.096	5.61
312.0463	238.63	202.86	197.31	196.83	197.4	196.72	209.03	198.054	5.60
312.5462	238.56	202.47	197.33	196.83	197.43	196.74	209.07	198.081	5.61
313.0468	238.52	203.2	197.33	196.81	197.44	196.72	209.06	198.222	5.62
313.5458	238.47	202.27	197.33	196.84	197.42	196.72	209.04	198.087	5.63
314.0465	238.49	202	197.33	196.83	197.42	196.74	209	198.105	5.62
314.5463	238.49	202.75	197.31	196.81	197.4	196.74	208.95	198.117	5.57
315.0462	238.51	202.56	197.29	196.83	197.4	196.74	208.85	198.105	5.55
315.546	238.52	203.22	197.28	196.79	197.35	196.74	208.79	198.117	5.58
316.0458	238.6	202.58	197.24	196.78	197.38	196.72	208.67	198.168	5.61
316.5465	238.68	202	197.24	196.76	197.37	196.74	208.57	198.087	5.60
317.0463	238.79	202.07	197.22	196.74	197.35	196.72	208.47	198.213	5.61
317.5462	238.85	202.51	197.19	196.72	197.35	196.72	208.4	198.132	5.62
318.046	238.88	202.02	197.17	196.7	197.33	196.74	208.33	198.177	5.65
318.5458	238.9	202.27	197.17	196.72	197.37	196.74	208.32	198.135	5.60
319.0465	238.86	202.95	197.19	196.7	197.37	196.74	208.34	198.18	5.57
319.5473	238.88	202.95	197.19	196.72	197.35	196.74	208.38	198.144	5.58
320.0462	238.92	202.92	197.17	196.72	197.31	196.67	208.34	197.967	5.61
320.546	238.88	204.04	197.17	196.7	197.29	196.7	208.36	198.105	5.61
321.0458	238.81	204.28	197.19	196.7	197.31	196.69	208.42	198.045	5.60
321.5465	238.81	203.74	197.2	196.74	197.33	196.7	208.5	197.994	5.60
322.0463	238.77	204.65	197.22	196.74	197.31	196.69	208.62	198.036	5.63
322.5462	238.77	203.85	197.24	196.78	197.35	196.7	208.72	198.054	5.62
323.046	238.79	204.15	197.26	196.79	197.38	196.72	208.88	198.03	5.57
323.5468	238.76	202.95	197.29	196.81	197.38	196.72	208.96	198.012	5.57
324.0467	238.69	202.29	197.31	196.81	197.4	196.72	209.01	198.096	5.58
324.5465	238.69	203.22	197.3	196.85	197.4	196.72	209.08	198.084	5.61
325.0462	238.67	203.53	197.33	196.83	197.42	196.72	209.1	198.099	5.60
325.546	238.63	202.52	197.33	196.85	197.42	196.74	209.09	198.033	5.61
326.0458	238.63	203.22	197.31	196.85	197.42	196.74	209.04	198.075	5.62
326.5457	238.58	203.78	197.31	196.83	197.42	196.72	209.01	198.096	5.64
327.0465	238.62	203.44	197.31	196.81	197.42	196.72	208.91	198.144	5.62

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
327.5463	238.6	204.42	197.3	196.79	197.38	196.76	208.84	198.123	5.57
328.0462	238.62	204.69	197.28	196.8	197.4	196.74	208.77	198.141	5.56
328.5458	238.67	204.37	197.26	196.78	197.4	196.74	208.65	198.144	5.59
329.0457	238.72	204.07	197.24	196.76	197.35	196.69	208.48	198.072	5.62
329.5465	238.78	202.92	197.19	196.72	197.31	196.69	208.34	198.048	5.60
330.0463	238.81	203.11	197.17	196.7	197.3	196.71	208.24	197.973	5.61
330.5462	238.79	202.42	197.15	196.69	197.26	196.69	208.23	198.018	5.61
331.046	238.83	201.5	197.14	196.69	197.3	196.69	208.18	198.018	5.65
331.5458	238.83	201.93	197.13	196.69	197.31	196.69	208.2	198.066	5.62
332.0465	238.87	201.58	197.15	196.71	197.31	196.71	208.22	198.006	5.56
332.5463	238.9	202.87	197.15	196.71	197.31	196.71	208.26	198.045	5.56
333.0462	238.85	202.77	197.17	196.71	197.31	196.71	208.33	198.042	5.58
333.546	238.79	203.8	197.15	196.72	197.37	196.7	208.43	198.054	5.60
334.0458	238.79	202.44	197.21	196.74	197.33	196.72	208.55	198.054	5.60
334.5465	238.81	202.17	197.23	196.76	197.35	196.71	208.67	198.078	5.61
335.0473	238.81	202.22	197.26	196.79	197.38	196.71	208.77	198.084	5.62
335.5462	238.78	201.81	197.28	196.79	197.4	196.74	208.89	198.111	5.64
336.046	238.7	201.75	197.3	196.81	197.42	196.72	209.01	198.033	5.60
336.5458	238.65	203.08	197.31	196.83	197.44	196.74	209.12	198.084	5.57
337.0465	238.58	203.49	197.35	196.85	197.48	196.76	209.16	198.144	5.58
337.5463	238.53	204.08	197.35	196.87	197.44	196.76	209.2	198.102	5.61
338.0462	238.45	204.53	197.37	196.87	197.44	196.71	209.14	197.943	5.61
338.546	238.44	203.74	197.33	196.85	197.42	196.7	209.02	197.961	5.61
339.0458	238.44	203.06	197.31	196.81	197.39	196.71	208.92	198.027	5.62
339.5465	238.49	203.6	197.3	196.81	197.44	196.72	208.82	197.982	5.63
340.0463	238.49	203.67	197.26	196.78	197.38	196.69	208.71	197.991	5.61
340.5462	238.63	203.29	197.24	196.78	197.35	196.7	208.59	197.952	5.56
341.047	238.7	204.19	197.22	196.74	197.35	196.7	208.52	198.015	5.57
341.5458	238.88	202.02	197.21	196.72	197.33	196.7	208.39	198.006	5.59
342.0467	239.05	201.86	197.15	196.72	197.33	196.69	208.27	198.006	5.61
342.5465	239.24	202.24	197.15	196.7	197.31	196.69	208.16	198	5.59
343.0462	239.4	203.21	197.14	196.67	197.31	196.69	208.09	198.036	5.62
343.546	239.51	203.06	197.12	196.65	197.3	196.71	208.08	198.012	5.61
344.0458	239.69	203.44	197.12	196.67	197.28	196.71	208.08	198.036	5.63
344.5457	239.83	203.4	197.12	196.67	197.3	196.71	208.12	198.06	5.61
345.0465	239.98	202.01	197.12	196.67	197.3	196.71	208.17	198.027	5.57
345.5463	240.05	202.01	197.15	196.65	197.31	196.72	208.26	198.057	5.56
346.047	239.98	203.56	197.17	196.72	197.33	196.76	208.38	198.084	5.58
346.5458	239.48	203.94	197.21	196.74	197.31	196.67	208.45	197.943	5.60
347.0457	239.01	202.99	197.21	196.72	197.31	196.69	208.54	197.937	5.59
347.5465	238.94	202.11	197.24	196.76	197.33	196.69	208.64	197.904	5.59
348.0463	239.08	201.58	197.26	196.78	197.37	196.69	208.8	197.949	5.60
348.5462	238.7	202.24	197.28	196.79	197.38	196.7	208.92	198.024	5.63

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
349.5458	238.96	202.31	197.31	196.83	197.42	196.72	209.09	197.988	5.56
350.0465	239.22	203.31	197.33	196.83	197.4	196.72	209.06	198.096	5.56
350.5463	239.39	203.35	197.33	196.85	197.42	196.71	209.03	197.985	5.57
351.0462	239.37	203.1	197.31	196.83	197.4	196.71	208.97	198.051	5.60
351.546	239.28	202.87	197.3	196.81	197.35	196.72	208.92	198.03	5.59
352.0458	239.15	202.22	197.3	196.81	197.4	196.72	208.82	198.033	5.59
352.5465	239.05	202.92	197.26	196.78	197.39	196.74	208.72	198.024	5.61
353.0463	238.99	203.26	197.24	196.78	197.39	196.71	208.6	198.039	5.61
353.5462	239.01	204.6	197.23	196.76	197.37	196.72	208.51	198.03	5.62
354.046	239.06	204.66	197.21	196.74	197.35	196.72	208.37	198.069	5.57
354.5458	239.14	203.71	197.17	196.71	197.33	196.7	208.23	198.075	5.55
355.0465	239.28	202.72	197.14	196.71	197.33	196.71	208.16	198.09	5.56
355.5463	239.49	202.26	197.14	196.67	197.31	196.74	208.1	198.162	5.60
356.0472	239.67	202.63	197.14	196.69	197.3	196.71	208.09	198.195	5.60
356.546	239.78	202.52	197.12	196.65	197.26	196.65	208.03	197.865	5.59
357.0458	239.71	203.31	197.1	196.65	197.28	196.67	208.02	197.919	5.60
357.5465	239.12	202.96	197.1	196.65	197.28	196.69	208.09	197.934	5.62
358.0473	238.67	202.92	197.14	196.67	197.28	196.69	208.18	197.964	5.63
358.5462	238.67	202.13	197.14	196.69	197.3	196.67	208.32	197.949	5.58
359.046	238.78	201.38	197.19	196.73	197.33	196.71	208.46	197.982	5.58
359.5458	238.78	201.65	197.21	196.76	197.35	196.71	208.59	197.943	5.57
360.0467	238.83	201.86	197.24	196.78	197.35	196.71	208.74	198.033	5.60
360.5473	238.92	202.44	197.26	196.8	197.39	196.71	208.9	197.979	5.61
361.0462	238.98	202.65	197.32	196.82	197.42	196.73	209.02	198.033	5.61
361.546	238.85	203.05	197.33	196.85	197.44	196.73	209.12	198.03	5.62
362.0458	238.71	204.07	197.35	196.85	197.44	196.74	209.2	198.027	5.62
362.5457	238.85	203.1	197.33	196.89	197.44	196.74	209.16	198.042	5.62
363.0465	239.03	203.49	197.35	196.87	197.39	196.76	209.08	198.069	5.57
363.5472	239.12	203.1	197.32	196.85	197.41	196.69	208.98	197.922	5.56
364.0462	239.07	202.15	197.3	196.81	197.39	196.69	208.81	197.889	5.56
364.5458	238.99	201.94	197.26	196.78	197.37	196.69	208.66	197.928	5.60
365.0457	238.98	203.17	197.24	196.76	197.35	196.69	208.52	197.958	5.58
365.5465	238.96	203.06	197.23	196.72	197.33	196.69	208.42	197.901	5.59
366.0472	238.81	202.58	197.19	196.74	197.33	196.71	208.33	197.937	5.62
366.5462	238.67	201.63	197.17	196.71	197.32	196.69	208.19	197.934	5.61
367.046	238.6	201.72	197.15	196.69	197.3	196.71	208.09	198.054	5.61
367.5458	238.58	201.27	197.12	196.65	197.3	196.69	207.97	197.958	5.55
368.0465	238.72	202.35	197.1	196.65	197.28	196.71	207.93	197.961	5.55
368.5463	238.9	202.35	197.1	196.64	197.28	196.69	207.95	198.018	5.56
369.0462	239.03	201.95	197.1	196.64	197.24	196.73	207.95	197.964	5.59
369.546	239.21	201.79	197.1	196.65	197.28	196.71	208.02	197.997	5.59
370.0458	239.39	201.79	197.1	196.65	197.3	196.69	208.12	198.018	5.60
370.5465	239.57	202.35	197.14	196.69	197.32	196.71	208.24	198.021	5.60

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
371.0463	239.53	202.47	197.17	196.71	197.33	196.71	208.35	198.015	5.60
371.5462	239.26	202.1	197.19	196.73	197.35	196.73	208.48	198.003	5.63
372.0468	239.1	201.92	197.21	196.76	197.35	196.74	208.65	198.039	5.58
372.5458	238.83	202.44	197.26	196.8	197.39	196.74	208.81	198.024	5.54
373.0465	238.67	202.47	197.3	196.82	197.39	196.69	208.87	197.841	5.54
373.5463	238.51	203.06	197.28	196.82	197.37	196.71	208.91	197.952	5.56
374.0462	238.51	203.05	197.3	196.82	197.39	196.71	208.95	197.871	5.60
374.546	238.38	202.98	197.32	196.83	197.39	196.73	208.97	197.916	5.59
375.0467	238.58	202.76	197.32	196.81	197.41	196.71	208.93	197.871	5.59
375.5465	238.85	203.44	197.3	196.82	197.39	196.71	208.9	197.871	5.59
376.0473	238.87	204.87	197.3	196.81	197.39	196.71	208.82	197.919	5.61
376.5472	238.8	203.78	197.28	196.8	197.37	196.69	208.73	197.94	5.63
377.046	238.64	202.19	197.24	196.78	197.37	196.71	208.65	197.949	5.58
377.5458	238.58	202.89	197.23	196.76	197.35	196.69	208.54	197.961	5.55
378.0467	238.58	203.06	197.21	196.74	197.33	196.69	208.41	197.961	5.57
378.5463	238.67	202.65	197.19	196.73	197.33	196.69	208.31	197.994	5.60
379.0472	238.74	202.29	197.17	196.71	197.33	196.71	208.19	198.009	5.60
379.546	238.81	202.67	197.15	196.69	197.3	196.71	208.09	197.985	5.60
380.0458	238.9	202.31	197.14	196.69	197.33	196.71	208.02	198.018	5.61
380.5457	239.1	202.88	197.12	196.65	197.28	196.71	208	198.009	5.62
381.0465	239.24	202.76	197.12	196.67	197.28	196.71	207.99	198.03	5.62
381.5463	239.44	202.92	197.12	196.65	197.3	196.71	208.02	198.039	5.57
382.0462	239.69	202.81	197.12	196.67	197.3	196.69	208.08	198.072	5.55
382.5458	239.84	203.64	197.14	196.69	197.32	196.71	208.18	198.003	5.57
383.0457	239.84	203.91	197.15	196.67	197.32	196.71	208.31	198.111	5.60
383.5465	239.75	202.83	197.17	196.74	197.24	196.6	208.36	197.784	5.61
384.0472	239.42	202.46	197.19	196.69	197.3	196.65	208.36	197.715	5.60
384.5462	238.96	202.2	197.19	196.73	197.32	196.69	208.44	197.76	5.60
385.046	238.62	202.19	197.19	196.72	197.33	196.67	208.54	197.781	5.65
385.5458	238.49	201.95	197.23	196.76	197.33	196.67	208.67	197.808	5.62
386.0465	238.62	202.53	197.24	196.78	197.35	196.67	208.73	197.811	5.56
386.5463	238.92	203.92	197.28	196.78	197.37	196.69	208.8	198.012	5.57
387.0462	239.1	203.21	197.26	196.8	197.35	196.71	208.79	197.952	5.59
387.546	239.15	202.69	197.26	196.78	197.37	196.69	208.74	197.979	5.61
388.0458	239.08	202.81	197.26	196.78	197.35	196.67	208.66	197.952	5.62
388.5465	238.96	203.49	197.26	196.78	197.35	196.69	208.61	197.877	5.60
389.0473	238.83	203.38	197.23	196.74	197.33	196.69	208.51	198.036	5.62
389.5462	238.78	204.15	197.22	196.74	197.33	196.69	208.43	197.886	5.64
390.046	238.78	202.7	197.19	196.72	197.33	196.67	208.3	197.865	5.59
390.5458	238.78	202.97	197.15	196.71	197.31	196.69	208.18	197.892	5.55
391.0465	238.81	202.6	197.15	196.69	197.29	196.7	208.07	197.907	5.56
391.5463	238.85	202.86	197.1	196.69	197.28	196.69	207.97	197.997	5.59
392.0462	238.99	202.76	197.12	196.65	197.28	196.69	207.9	197.862	5.60

Table B6. Continued.

Time min	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	Pinj psig	Pout psig	Vw cc/min
393.0458	239.14	202.2	197.08	196.63	197.26	196.71	207.89	198.057	5.62
393.5465	239.21	202.22	197.1	196.63	197.26	196.67	207.92	198.03	5.62
394.0473	239.24	202.11	197.12	196.65	197.28	196.67	207.99	197.886	5.63
394.5462	239.26	203.79	197.12	196.65	197.26	196.65	207.99	197.736	5.57
395.0497	239.3	203.56	197.12	196.65	197.26	196.65	208.06	197.73	5.57
395.5458	239.31	205.1	197.14	196.67	197.26	196.67	208.17	197.796	5.57
396.0467	239.06	204.24	197.15	196.7	197.31	196.67	208.29	197.799	5.60
396.5463	238.76	204.1	197.19	196.72	197.33	196.69	208.41	197.766	5.60
397.0462	238.56	204.55	197.2	196.74	197.35	196.67	208.53	197.811	5.60
397.546	238.51	204.14	197.24	196.78	197.35	196.7	208.65	197.802	5.62
398.0458	238.6	203.56	197.28	196.78	197.42	196.67	208.76	197.892	5.64
398.5457	238.79	203.55	197.28	196.79	197.39	196.72	208.8	197.817	5.61
399.0465	238.92	204.51	197.26	196.79	197.37	196.7	208.8	197.838	5.57
399.5463	238.88	203.55	197.28	196.79	197.39	196.7	208.77	197.811	5.55
400.0462	238.72	201.93	197.28	196.79	197.39	196.71	208.75	197.862	5.57
400.5458	238.63	202.83	197.26	196.79	197.37	196.7	208.66	197.886	5.60
401.0467	238.63	204.08	197.24	196.76	197.37	196.7	208.59	197.856	5.60
401.5465	238.7	202.17	197.22	196.76	197.35	196.69	208.5	197.847	5.60
402.0463	238.69	202.13	197.21	196.74	197.33	196.69	208.39	197.874	5.61
402.5462	238.76	202.77	197.19	196.72	197.33	196.72	208.28	197.925	5.61
403.046	238.81	202.9	197.17	196.7	197.31	196.7	208.18	197.868	5.63
403.5458	238.83	203.74	197.13	196.69	197.31	196.69	208.08	197.871	5.57
404.0465	238.92	203.04	197.12	196.67	197.3	196.69	207.99	197.907	5.56
404.5463	238.94	202.97	197.1	196.65	197.28	196.69	207.98	197.922	5.58
405.0462	238.96	202.42	197.12	196.65	197.3	196.69	207.96	197.928	5.58
405.546	238.94	202.88	197.12	196.63	197.28	196.69	207.97	197.913	5.60
406.0458	238.96	202.87	197.12	196.67	197.28	196.71	208.01	197.91	5.61
406.5465	238.94	202.13	197.12	196.67	197.28	196.65	208.08	197.694	5.62
407.0463	238.83	202.63	197.14	196.65	197.26	196.65	208.06	197.655	5.64
407.5462	238.74	202.06	197.14	196.67	197.28	196.65	208.14	197.877	5.61
408.046	238.71	202.61	197.15	196.69	197.28	196.65	208.25	197.745	5.57
408.5458	238.65	202.13	197.17	196.71	197.32	196.65	208.33	197.76	5.56
409.0465	238.62	203.8	197.19	196.72	197.32	196.67	208.47	197.862	5.60
409.5463	238.56	202.92	197.21	196.74	197.28	196.67	208.57	197.82	5.60
410.0462	238.44	203.49	197.24	196.78	197.35	196.69	208.67	197.823	5.60
410.546	238.38	202.4	197.26	196.78	197.37	196.69	208.7	197.847	5.61
411.0458	238.29	203.31	197.26	196.79	197.37	196.71	208.75	197.868	5.64
411.5465	238.42	202.45	197.28	196.79	197.39	196.69	208.71	197.796	5.64
412.0473	238.55	203.12	197.28	196.8	197.39	196.69	208.68	197.766	5.58
412.5472	238.72	202.9	197.26	196.78	197.37	196.69	208.61	197.754	5.57
413.046	238.85	203.53	197.22	196.74	197.33	196.69	208.53	197.805	5.58
413.5458	238.92	203.4	197.22	196.76	197.33	196.7	208.43	197.823	5.61
414.0467	239.05	202.72	197.21	196.74	197.33	196.69	208.35	197.883	5.60

APPENDIX C

PRODUCTION DATA

Table C1-Production data for Run 1

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
30	32	32	0	0	0	0	0	1.1	0.16	30
34	32	32	0	0	0	0	32	8	0.18	34
38	37	37	0	0	0	0	69	9.25	0.2	38
41	27	27	0	0	0	0	96	9	0.22	41
44	26	26	0	0	0	0	122	8.666667	0.23	44
47	24	23	1	1	0.163913	0.33333	145	7.666667	0.25	47
50	23	22	1	2	0.327826	0.33333	167	7.333333	0.26	50
53	23	21	2	4	0.655652	0.66667	188	7	0.28	53
56	24	22	2	6	0.983478	0.66667	210	7.333333	0.3	56
59	21	19	2	8	1.311303	0.66667	229	6.333333	0.31	59
62	24	20	4	12	1.966955	1.33333	249	6.666667	0.33	62
65	19	16	3	15	2.458694	1	265	5.333333	0.34	65
68	24	15	9	24	3.93391	3	280	5	0.36	68
70.5	20	11	9	33	5.409127	3.6	291	4.4	0.37	70.5
73	22	11	11	44	7.212169	4.4	302	4.4	0.39	73
75	22	11	11	55	9.015211	5.5	313	5.5	0.4	75
77	24	11	13	68	11.14608	6.5	324	5.5	0.41	77
79.5	23	13	10	78	12.78521	4	337	5.2	0.42	79.5
81.5	25	11	14	92	15.07999	7	348	5.5	0.43	81.5
83.5	32	14	18	110	18.03042	9	362	7	0.44	83.5
86	29	13	16	126	20.65303	6.4	375	5.2	0.45	86
88.5	26	10	16	142	23.27564	6.4	385	4	0.47	88.5
91.5	29	13	16	158	25.89824	5.33333	398	4.333333	0.48	91.5
95	35	16	19	177	29.01259	5.42857	414	4.571429	0.5	95
98.5	37	17	20	197	32.29085	5.71429	431	4.857143	0.52	98.5
101.5	30	14	16	213	34.91345	5.33333	445	4.666667	0.54	101.5
105	34	16	18	231	37.86389	5.14286	461	4.571429	0.55	105
108.5	34	16	18	249	40.81432	5.14286	477	4.571429	0.57	108.5
112.5	36	18	18	267	43.76475	4.5	495	4.5	0.59	112.5
116.5	32	16	16	283	46.38736	4	511	4	0.61	116.5
120.5	36	18	18	301	49.33779	4.5	529	4.5	0.64	120.5
124.5	32	14	18	319	52.28822	4.5	543	3.5	0.66	124.5
129	40	24	16	335	54.91083	3.55556	567	5.333333	0.68	129
132.5	36	16	20	355	58.18909	5.71429	583	4.571429	0.7	132.5
137	34	10	24	379	62.123	5.33333	593	2.222222	0.72	137
140	27	12	15	394	64.58169	5	605	4	0.74	140
146	44	33	11	405	66.38474	1.83333	638	5.5	0.77	146
151.5	45	32	13	418	68.5156	2.36364	670	5.818182	0.8	151.5

Table C1-Continued

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
158	40	35	5	423	69.33517	0.76923	705	5.384615	0.83	158
163.5	33	30	3	426	69.82691	0.54545	735	5.454545	0.86	163.5
169	35	32	3	429	70.31865	0.54545	767	5.818182	0.89	169
174	31	28	3	432	70.81039	0.6	795	5.6	0.92	174
180	36	33	3	435	71.30212	0.5	828	5.5	0.95	180
186	33	31	2	437	71.62995	0.33333	859	5.166667	0.98	186
191.5	37	35	2	439	71.95778	0.36364	894	6.363636	1.01	191.5
196.5	41	38	3	442	72.44951	0.6	932	7.6	1.04	196.5
203	50	46	4	446	73.10517	0.61538	978	7.076923	1.07	203
210	23	20	3	449	73.59691	0.42857	998	2.857143	1.11	210
217	36	34	2	451	73.92473	0.28571	1032	4.857143	1.15	217
224	41	39	2	453	74.25256	0.28571	1071	5.571429	1.18	224
230	39	36	3	456	74.7443	0.5	1107	6	1.21	230
235	32	30	2	458	75.07212	0.4	1137	6	1.24	235
240	30	28	2	460	75.39995	0.4	1165	5.6	1.27	240

Table C2-Production Data for Run 2

Time (Min)	Vtotal(cm3)	Vwater(cm3)	Voil (cm3)	Cum oil (cm3)	Recovery %OOIP	Oil rate (cc/min)	Cum water (cm3)	Water Rate (cc/min)	Vpore (CWE)
32	41	41	0	0	0	0	0	1.28125	0.17
36	47	47	0	0	0	0	41	10.25	0.19
40	30	30	0	0	0	0	88	11.75	0.21
44	40	40	0	0	0	0	118	7.5	0.23
48	35	34	1	1	0.163913	0.25	158	10	0.26
57	26	25	1	2	0.327826	0.11111	192	3.7777778	0.30
62	36	34	2	4	0.655652	0.4	217	5	0.33
67	37	30	7	11	1.803042	1.4	251	6.8	0.36
69	31	18	13	24	3.93391	6.5	281	15	0.37
72	35	20	15	39	6.392604	5	299	6	0.38
74	34	15	19	58	9.50695	9.5	319	10	0.39
77	35	15	20	78	12.78521	6.66667	334	5	0.41
80	31	11	20	98	16.06347	6.66667	349	5	0.43
83	31	13	18	116	19.0139	6	360	3.6666667	0.44
86	31	14	17	133	21.80042	5.66667	373	4.3333333	0.46
88	28	10	18	151	24.75085	9	387	7	0.47
91	31	11	20	171	28.02911	6.66667	397	3.3333333	0.48
94	31	11	20	191	31.30737	6.66667	408	3.6666667	0.50
97	31	11	20	211	34.58563	6.66667	419	3.6666667	0.52
100	34	15	19	230	37.69997	6.33333	430	3.6666667	0.53
102	35	16	19	249	40.81432	9.5	445	7.5	0.54
105	32	14	18	267	43.76475	6	461	5.3333333	0.56
107	32	16	16	283	46.38736	8	475	7	0.57
110	26	12	14	297	48.68214	4.66667	491	5.3333333	0.59
114	33	16	17	314	51.46866	4.25	503	3	0.61
117.5	33	14	19	333	54.58301	5.42857	519	4.5714286	0.63
121	36	18	18	351	57.53344	5.14286	533	4	0.64
125.5	38	20	18	369	60.48387	4	551	4	0.67
130	39	20	19	388	63.59822	4.22222	571	4.4444444	0.69
135	41	24	17	405	66.38474	3.4	591	4	0.72
140	40	30	10	415	68.02387	2	615	4.8	0.74
146	44	34	10	425	69.663	1.66667	645	5	0.78
153.5	30	26	4	429	70.31865	0.53333	679	4.5333333	0.82
158	41	38	3	432	70.81039	0.66667	705	5.7777778	0.84
167	45	41	4	436	71.46604	0.44444	743	4.2222222	0.89
176	48	40	8	444	72.77734	0.88889	784	4.5555556	0.94
180	40	36	4	448	73.43299	1	824	10	0.96
186	35	34	1	449	73.59691	0.16667	860	6	0.99
195	35	33	2	451	73.92473	0.22222	894	3.7777778	1.04
200	45	43	2	453	74.25256	0.4	927	6.6	1.06
208	43	41	2	455	74.58038	0.25	970	5.375	1.11
215	42	40	2	457	74.90821	0.28571	1011	5.8571429	1.14
224	37	35	2	459	75.23603	0.22222	1051	4.4444444	1.19
233	39	38	1	460	75.39995	0.11111	1086	3.8888889	1.24
240	37	35	2	462	75.72777	0.28571	1124	5.4285714	1.28

Table C3-Production data for Run 3

Time (Min)	Vtotal (cm3)	Vwater (cm3)	Voil (cm3)	Cum oil (cm3)	Recovery %OOIP	Oil rate (cc/min)	Cum water (cm3)	Water Rate (cc/min)	Vpore(CWE)
61	44	0	44	0	0	0	44	0.7213115	0.29
65	40	0	40	0	0	0	88	11	0.31
70	41	2	39	2	0.601775	0.4	128	8	0.33
78	39	2	37	4	1.20355	0.25	167	4.875	0.37
83	43	3	40	7	2.106213	0.6	204	7.4	0.40
87	42	3	39	10	3.008876	0.75	244	10	0.42
92	40	2	38	12	3.610651	0.4	283	7.8	0.44
96	35	8	27	20	6.017752	2	321	9.5	0.46
100	41	12	29	32	9.628404	3	348	6.75	0.48
105	68	20	48	52	15.64616	4	377	5.8	0.50
110	38	18	20	70	21.06213	3.6	425	9.6	0.52
115	35	9	26	79	23.77012	1.8	445	4	0.55
119	33	16	17	95	28.58432	4	471	6.5	0.57
123	39	11	28	106	31.89409	2.75	488	4.25	0.59
129	41	4	37	110	33.09764	0.66667	516	4.6666667	0.62
135	39	11	28	121	36.4074	1.83333	553	6.1666667	0.64
142	15	13	2	134	40.31894	1.85714	581	4	0.68
154	45	3	42	137	41.2216	0.25	583	0.1666667	0.73
160	48	3	45	140	42.12427	0.5	625	7	0.76
164	41	5	36	145	43.6287	1.25	670	11.25	0.78
170	43	3	40	148	44.53137	0.5	706	6	0.81
177	40	3	37	151	45.43403	0.42857	746	5.7142857	0.84
184	36	2	34	153	46.03581	0.28571	783	5.2857143	0.88
191	36	3	33	156	46.93847	0.42857	817	4.8571429	0.91
205	43	4	39	160	48.14202	0.28571	850	2.3571429	0.98
212	47	2	45	162	48.74379	0.28571	889	5.5714286	1.01
218	34	2	32	164	49.34557	0.33333	934	7.5	1.04
224	44	2	42	166	49.94734	0.33333	966	5.3333333	1.07
230	45	3	42	169	50.85001	0.5	1008	7	1.10
236	49	3	46	172	51.75267	0.5	1050	7	1.13
240	40	2	38	174	52.35445	0.5	1096	11.5	1.14

Table C4-Production data for Run 4

Time (Min)	Vtotal (cm3)	Vwater (cm3)	Voil (cm3)	Cum oil (cm3)	Recovery %OOIP	Oil rate (cc/min)	Cum water (cm3)	Water Rate (cc/min)	Vpore(CWE)
57	46	0	46	0	0	0	46	0.81	0.28
62	46	0	46	0	0	0	92	9.20	0.30
67	46	0	46	0	0	0	138	9.20	0.32
71	50	0	50	0	0	0	184	11.50	0.34
77	52	0	52	0	0	0	234	8.33	0.37
82	50	0	50	0	0	0	286	10.40	0.40
86	50	0	50	0	0	0	336	12.50	0.42
91	44	0	44	0	0	0	386	10.00	0.44
95	34	5	29	5	1.457726	1.25	430	11.00	0.46
99	38	20	18	25	7.28863	5	459	7.25	0.48
103	36	16	20	41	11.95335	4	477	4.50	0.50
106	31	16	15	57	16.61808	5.333333	497	6.67	0.51
109	33	15	18	72	20.99125	5	512	5.00	0.53
113	34	14	20	86	25.07289	3.5	530	4.50	0.55
117	34	14	20	100	29.15452	3.5	550	5.00	0.57
121	35	12	23	112	32.65306	3	570	5.00	0.59
124	32	12	20	124	36.1516	4	593	7.67	0.60
128	32	7	25	131	38.19242	1.75	613	5.00	0.62
133	34	6	28	137	39.94169	1.2	638	5.00	0.64
138	35	5	30	142	41.39942	1	666	5.60	0.67
144	38	5	33	147	42.85714	0.833333	696	5.00	0.70
150	41	4	37	151	44.02332	0.666667	729	5.50	0.73
157	36	4	32	155	45.1895	0.571429	766	5.29	0.76
164	49	3	46	158	46.06414	0.428571	798	4.57	0.79
172	47	3	44	161	46.93878	0.375	844	5.75	0.83
179	43	3	40	164	47.81341	0.428571	888	6.29	0.87
186	43	2	41	166	48.3965	0.285714	928	5.71	0.90
193	44	2	42	168	48.97959	0.285714	969	5.86	0.93
201	42	1	41	169	49.27114	0.125	1011	5.25	0.97
210	47	2	45	171	49.85423	0.222222	1052	4.56	1.02
218	45	2	43	173	50.43732	0.25	1097	5.63	1.05
226	35	2	33	175	51.02041	0.25	1140	5.38	1.09
232	33	3	30	178	51.89504	0.5	1173	5.50	1.12
240	49	4	45	182	53.06122	0.5	1203	3.75	1.16

Table C5-Production data for Run 5

Time (Min)	Vtotal (cm3)	Voil (cm3)	Vwater (cm3)	Cum oil (cm3)	Recovery %OOIP	Oil rate (cc/min)	Cum water (cm3)	Water Rate (cc/min)	Vpore(CWE)
55	55	0	55	0	0	0	55	1.6666667	0.26
60	52	0	52	0	0	0	110	11	0.29
66	58	0	58	0	0	0	162	8.6666667	0.32
72	56	0	56	0	0	0	220	9.6666667	0.34
79	62	0	62	0	0	0	276	8	0.38
84	32	12	20	12	3.560831	2.4	338	12.4	0.40
87	42	6	36	18	5.341246	2	358	6.6666667	0.42
91	45	4	41	22	6.52819	1	394	9	0.43
94	35	14	21	36	10.68249	4.666667	435	13.666667	0.45
98	37	18	19	54	16.02374	4.5	456	5.25	0.47
103	35	17	18	71	21.06825	3.4	475	3.8	0.49
106	35	13	22	84	24.92582	4.333333	493	6	0.51
111	40	17	23	101	29.97033	3.4	515	4.4	0.53
115	37	13	24	114	33.82789	3.25	538	5.75	0.55
120	44	15	29	129	38.27893	3	562	4.8	0.57
125	42	12	30	141	41.83976	2.4	591	5.8	0.60
130	40	15	25	156	46.2908	3	621	6	0.62
135	19	3	16	159	47.18101	0.6	646	5	0.64
144	40	9	31	168	49.85163	1	662	1.7777778	0.69
152	45	5	40	173	51.33531	0.625	693	3.875	0.73
159	40	3	37	176	52.22552	0.428571	733	5.7142857	0.76
165	35	2	33	178	52.81899	0.333333	770	6.1666667	0.79
171	44	3	41	181	53.7092	0.5	803	5.5	0.82
180	36	2	34	183	54.30267	0.222222	844	4.5555556	0.86
188	45	2	43	185	54.89614	0.25	878	4.25	0.90
196	40	2	38	187	55.48961	0.25	921	5.375	0.94
203	44	2	42	189	56.08309	0.285714	959	5.4285714	0.97
210	41	3	38	192	56.97329	0.428571	1001	6	1.00
218	49	2	47	194	57.56677	0.25	1039	4.75	1.04
225	40	2	38	196	58.16024	0.285714	1086	6.7142857	1.07
233	15	1	14	197	58.45697	0.125	1124	4.75	1.11
240	48	2	46	199	59.05045	0.285714	1138	2	1.15

Table C6-Production data for Run 6

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
39	35	0	35	0	0	0	35	0.8974359	0.19	39
43	45	0	45	0	0	0	70	8.75	0.21	43
48	32	1	31	1	0.1683502	0.2	115	9	0.23	48
53	33	0	33	1	0.1683502	0	146	6.2	0.26	53
56	27	1	26	2	0.3367003	0.3333333	179	11	0.27	56
60	32	1	31	3	0.5050505	0.25	205	6.5	0.29	60
65	32	2	30	5	0.8417508	0.4	236	6.2	0.32	65
69	33	2	31	7	1.1784512	0.5	266	7.5	0.34	69
73	38	2	36	9	1.5151515	0.5	297	7.75	0.36	73
78	32	2	30	11	1.8518519	0.4	333	7.2	0.38	78
83	32	2	30	13	2.1885522	0.4	363	6	0.4	83
88	33	3	30	16	2.6936027	0.6	393	6	0.43	88
93	14	8	6	24	4.040404	1.6	423	6	0.45	93
96	36	15	21	39	6.5656566	5	429	2	0.47	96
98	28	14	14	53	8.9225589	7	450	10.5	0.48	98
100	28	14	14	67	11.279461	7	464	7	0.49	100
102	34	12	22	79	13.299663	6	478	7	0.5	102
105	30	15	15	94	15.824916	5	500	7.3333333	0.51	105
108	30	20	10	114	19.191919	6.6666667	515	5	0.53	108
111	31	14	17	128	21.548822	4.6666667	525	3.3333333	0.54	111
115	25	12	13	140	23.569024	3	542	4.25	0.56	115
119	34	30	4	170	28.619529	7.5	555	3.25	0.58	119
124	37	29	8	199	33.501684	5.8	559	0.8	0.6	124
128	40	34	6	233	39.225589	8.5	567	2	0.62	128
132	38	33	5	266	44.781145	8.25	573	1.5	0.64	132
136	39	23	16	289	48.653199	5.75	578	1.25	0.66	136
140	21	10	11	299	50.3367	2.5	594	4	0.68	140
144	39	13	26	312	52.525253	3.25	605	2.75	0.7	144
148	39	37	2	349	58.754209	9.25	631	6.5	0.72	148
153	40	19	21	368	61.952862	3.8	633	0.4	0.75	153
157	18	6	12	374	62.962963	1.5	654	5.25	0.76	157
162	26	7	19	381	64.141414	1.4	666	2.4	0.79	162
167	15	13	2	394	66.329966	2.6	685	3.8	0.81	167
172	38	3	35	397	66.835017	0.6	687	0.4	0.84	172
176	30	10	20	407	68.518519	2.5	722	8.75	0.86	176
181	34	3	31	410	69.023569	0.6	742	4	0.88	181
186	36	1	35	411	69.191919	0.2	773	6.2	0.91	186
191	40	2	38	413	69.52862	0.4	808	7	0.93	191

Table C6-Continued

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
195	38	7	31	420	70.707071	1.75	846	9.5	0.95	195
200	41	2	39	422	71.043771	0.4	877	6.2	0.97	200
205	41	5	36	427	71.885522	1	916	7.8	1	205
210	41	1	40	428	72.053872	0.2	952	7.2	1.02	210
215	39	2	37	430	72.390572	0.4	992	8	1.05	215
220	37	4	33	434	73.063973	0.8	1029	7.4	1.07	220
225	45	2	43	436	73.400673	0.4	1062	6.6	1.1	225
230	15	2	13	438	73.737374	0.4	1105	8.6	1.12	230
235	31	6	25	444	74.747475	1.2	1118	2.6	1.14	235
240	35	1	34	445	74.915825	0.2	1143	5	1.17	240
270	37	0	37	445	74.915825	0	1177	1.1333333	1.32	270
276	37	0	37	445	74.915825	0	1214	6.1666667	1.34	276
283	3	1	2	446	75.084175	0.1428571	1251	5.2857143	1.38	283
289	35	1	34	447	75.252525	0.1666667	1253	0.3333333	1.41	289
296	35.5	0.5	35	447.5	75.3367	0.0714286	1287	4.8571429	1.44	296
303	39	1	38	448.5	75.505051	0.1428571	1322	5	1.48	303
310	28	2	26	450.5	75.841751	0.2857143	1360	5.4285714	1.51	310
316	35	2	33	452.5	76.178451	0.3333333	1386	4.3333333	1.54	316
322	33	3	30	455.5	76.683502	0.5	1419	5.5	1.57	322
329	37	2	35	457.5	77.020202	0.2857143	1449	4.2857143	1.6	329
336	17	2	15	459.5	77.356902	0.2857143	1484	5	1.64	336
341	33	2	31	461.5	77.693603	0.4	1499	3	1.66	341
378	42	2	40	463.5	78.030303	0.0540541	1530	0.8378378	1.84	378
385	43	2	41	465.5	78.367003	0.2857143	1570	5.7142857	1.88	385
392	43	1	42	466.5	78.535354	0.1428571	1611	5.8571429	1.91	392
398	41	2	39	468.5	78.872054	0.3333333	1653	7	1.94	398
404	28	1	27	469.5	79.040404	0.1666667	1692	6.5	1.97	404
410	43	2	41	471.5	79.377104	0.3333333	1719	4.5	2	410
416	37	1	36	472.5	79.545455	0.1666667	1760	6.8333333	2.03	416
423	31	2	29	474.5	79.882155	0.2857143	1796	5.1428571	2.06	423
429	44	2	42	476.5	80.218855	0.3333333	1825	4.8333333	2.09	429
435	39	1	38	477.5	80.387205	0.1666667	1867	7	2.12	435
442	37	1	36	478.5	80.555556	0.1428571	1905	5.4285714	2.15	442

Table C7-Production data for Run 7

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
44	35	0	35	0	0	0	35	0.8974359	0.21	44
49	45	0	45	0	0	0	70	7	0.24	49
54	31	0	31	0	0	0	115	9	0.26	54
60	33	0	33	0	0	0	146	5.1666667	0.29	60
67	26	0	26	0	0	0	179	4.7142857	0.33	67
72	31	0	31	0	0	0	205	5.2	0.35	72
78	30	0	30	0	0	0	236	5.1666667	0.38	78
84	36	5	31	5	0.841751	0.833333	266	5	0.41	84
90	47	17	30	22	3.703704	2.833333	297	5.1666667	0.44	90
95	47	19	28	41	6.902357	3.8	327	6	0.46	95
98	42	21	21	62	10.43771	7	355	9.3333333	0.48	98
101	37	23	14	85	14.30976	7.666667	376	7	0.49	101
105	38	24	14	109	18.35017	6	390	3.5	0.51	105
108	44	27	17	136	22.89562	9	404	4.6666667	0.53	108
111	38	33	5	169	28.45118	11	421	5.6666667	0.54	111
114	41	35	6	204	34.34343	11.66667	426	1.6666667	0.56	114
117	42	34	8	238	40.06734	11.33333	432	2	0.57	117
120	36	32	4	270	45.45455	10.66667	440	2.6666667	0.58	120
123	37	28	9	298	50.16835	9.333333	444	1.3333333	0.6	123
127	27	19	8	317	53.367	4.75	453	2.25	0.62	127
131	33	19	14	336	56.56566	4.75	461	2	0.64	131
136	33	17	16	353	59.42761	3.4	475	2.8	0.66	136
140	32	15	17	368	61.95286	3.75	491	4	0.68	140
145	33	13	20	381	64.14141	2.6	508	3.4	0.71	145
152	37	11	26	392	65.99327	1.571429	528	2.8571429	0.74	152
158	39	9	30	401	67.50842	1.5	554	4.3333333	0.77	158
166	35	10	25	411	69.19192	1.25	584	3.75	0.81	166
173	36	8	28	419	70.53872	1.142857	609	3.5714286	0.84	173
180	32	5	27	424	71.38047	0.714286	637	4	0.88	180
187	36	4	32	428	72.05387	0.571429	664	3.8571429	0.91	187
195	34	3	31	431	72.55892	0.375	696	4	0.95	195
204	33	3	30	434	73.06397	0.333333	727	3.4444444	0.99	204
213	30	2	28	436	73.40067	0.222222	757	3.3333333	1.04	213
223	36	2	35	438	73.73737	0.2	785	2.8	1.09	223
233	33	2	32	440	74.07407	0.2	820	3.5	1.14	233
242	32	1	31	441	74.24242	0.111111	852	3.5555556	1.18	242
250	37	1	35	442	74.41077	0.125	883	3.875	1.22	250
260	40	1	38	443	74.57912	0.1	918	3.5	1.27	260

Table C7-Continued

Time min	Vpore (CWE)	Sample No.	Vtotal cm3	Vwater cm3	Voil cm3	Cum. Water cm3	Cum. Oil cm3	Water Rate cm3/min	Oil Rate cm3/min	Recovery %
268	33	2	31	445	74.91582	0.25	956	4.75	1.31	268
278	40	2	39	447	75.25253	0.2	987	3.1	1.35	278
290	37	2	36	449	75.58923	0.166667	1026	3.25	1.41	290
304	38	1	37	450	75.75758	0.071429	1062	2.5714286	1.48	304
315	38	1	37	451	75.92593	0.090909	1099	3.3636364	1.53	315
328	14	1	13	452	76.09428	0.076923	1136	2.8461538	1.6	328
342	35	1	34	453	76.26263	0.071429	1149	0.9285714	1.67	342
356	39	1	37	454	76.43098	0.071429	1183	2.4285714	1.73	356
367	38	1	37	455	76.59933	0.090909	1220	3.3636364	1.79	367
373	3	2	2	457	76.93603	0.333333	1257	6.1666667	1.82	373
388	34	1	33	458	77.10438	0.066667	1259	0.1333333	1.89	388
403	38	1	36	459	77.27273	0.066667	1292	2.2	1.96	403
413	27	1	26	460	77.44108	0.1	1328	3.6	2.01	413
422	36	2	35	462	77.77778	0.222222	1354	2.8888889	2.06	422
435	31	1	31	463	77.94613	0.076923	1389	2.6923077	2.12	435
440	40	1	40	464	78.11448	0.2	1420	6.2	2.14	440
268	33	2	31	445	74.91582	0.25	956	4.75	1.31	268
278	40	2	39	447	75.25253	0.2	987	3.1	1.35	278
290	37	2	36	449	75.58923	0.166667	1026	3.25	1.41	290
304	38	1	37	450	75.75758	0.071429	1062	2.5714286	1.48	304
315	38	1	37	451	75.92593	0.090909	1099	3.3636364	1.53	315
328	14	1	13	452	76.09428	0.076923	1136	2.8461538	1.6	328
342	35	1	34	453	76.26263	0.071429	1149	0.9285714	1.67	342
356	39	1	37	454	76.43098	0.071429	1183	2.4285714	1.73	356
367	38	1	37	455	76.59933	0.090909	1220	3.3636364	1.79	367
373	3	2	2	457	76.93603	0.333333	1257	6.1666667	1.82	373
388	34	1	33	458	77.10438	0.066667	1259	0.1333333	1.89	388
403	38	1	36	459	77.27273	0.066667	1292	2.2	1.96	403
413	27	1	26	460	77.44108	0.1	1328	3.6	2.01	413
422	36	2	35	462	77.77778	0.222222	1354	2.8888889	2.06	422
435	31	1	31	463	77.94613	0.076923	1389	2.6923077	2.12	435
440	40	1	40	464	78.11448	0.2	1420	6.2	2.14	440

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